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COURSE OF STUDY

For Rural and Graded ELEMENTARY SCHOOLS



For Use in the Public Schools
of Montana



Issued by

ELIZABETH IRELAND

Superintendent of Public Instruction

1942

Helena, Montana



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Helena Public Schools

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FOR
Rural and Graded Elementary
Schools

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State Superintendent of Public Instruction
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*“Land of our Birth, our faith, our pride,
For whose dear sake our fathers died;
Oh Motherland, we pledge to thee,
Head, heart, and hand through the years to be!”*

*The Children's Song—
Rudyard Kipling*

FOREWORD

In compliance with the statutory provisions of the Montana School Law, which provides that the State Department of Public Instruction shall cause to be prepared a course of study for all public schools of the State, this Handbook is submitted.

The printed Course of Study includes four parts, all of which should be in each elementary schoolroom. These four parts are:

1. The Handbook
2. A somewhat stable, yet a looseleaf book containing forty-eight units, to be changed as educational needs arise
3. A pamphlet, kept up-to-date, listing sources of books, texts, films, and other teaching and learning materials
4. A broadside in each subject-matter field, for each grade, which several authorities give as acceptable achievements

It is not intended that this Course of Study be a pedagogical cookbook; nor is it intended that it be followed slavishly. This Course of Study, which is intended to serve as a working basis, is flexible enough to permit each teacher and learner to use his own initiative; still it should remain the coordinating agency that will assist in the achievement of well-measured, somewhat uniform standards and practices throughout the public school system of Montana.

Grateful acknowledgment is made to the Supervisory Staff of the Office of the State Department of Public Instruction; to the Teachers, Principals, County Superintendents, and City Superintendents of the Schools of the State; to the members of the Faculty of the Divisions of the University of Montana; to the Textbook Companies; to the Departments of Education of other states for courses of study; and to the inspiration received from thousands of Montana School Children for valuable help and suggestions. Special acknowledgment is given to Douglas Gold, Rural School Supervisor, who was in direct charge of curriculum construction for the Elementary Schools of the State and to Maud Brown, Director of Health Education, State Board of Health. Invaluable assistance was rendered by the Tribune Printing and Supply Company, and by Ellen Colleran Greene in editing the manuscript and in reading and correcting the proof.

ELIZABETH IRELAND
Superintendent of Public Instruction

Helena, Montana
September 14, 1942

To the Members of the
State Board of Education:

Governor Sam C. Ford, Helena
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G. M. Brandborg, Hamilton
Victor Weber, Deer Lodge
Mrs. Agnes Ulman, Big Timber
Chas. S. Baldwin, Kalispell

For your approval, I have the honor and pleasure to present to you herein the curriculum for use in the Public Elementary Schools of the State.

Sincerely yours,

ELIZABETH IRELAND
State Superintendent of Public Instruction

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In addition to the assistance of these committees, much valuable help has been given by other Montana Elementary Teachers, by County Superintendents, and by members of the Faculties of the units of the Greater University of Montana

THIS BOOK IS THE PROPERTY OF THE SCHOOL DISTRICT

This Course of Study is the property of SCHOOL DISTRICT NO....., and has been purchased for the use of the teacher during the school session. It is to be left either at the school, or with the County Superintendent or City Superintendent, at the close of the school year for the use of the succeeding teacher.

Copies of this Course of Study may be obtained from The Tribune Printing and Supply Company, Great Falls, Montana, or from the Northern School Supply Company, Great Falls, Montana.

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THE CURRICULUM FOR MODERN ELEMENTARY SCHOOLS FOR MONTANA

I. INTRODUCTORY STATEMENT

"Although education is commonly thought of as beginning when a child enters school, learning actually starts at birth and extends throughout the lifetime of the individual. The elementary school continues education which has already begun. A teacher helps children to organize their learning so that each day's experience contributes something to the whole process of education.

"Schools need to be so organized that the child will not encounter difficult breaks or gaps in his experience as he moves from home to preschool, on to kindergarten, elementary, and secondary levels, and then to college, or work for pay. His progress should call for no more adjustment than is needed in shifting from low to intermediate, and then to high gear, in a modern automobile.

"The child acquires and uses knowledges, habits and skills, and attitudes which are a part of what he actually thinks and does. He must feel a need for such learning in his home, in his school life, and in his community life. As his horizon enlarges he realizes that his community is a part of the Nation and of the world.

"When he cares for a pet, buys at the store, plays with his friends, or takes part in Junior Red Cross activities, the child is being educated. School experiences should make him better prepared to meet each of these life situations as it comes and to make his own contribution.

"Each school has the responsibility for giving the child different experiences on the highest level at which he is capable of working. Such experiences in the elementary school should include reading, writing, seeing, constructing, singing, drawing, recording, reporting, listening, observing, appreciating, discussing, planning, analyzing, evaluating—and many more.

"Such experiences are organized to meet the needs of the individual as a member of the group, and are not necessarily to be set up as class periods in geography, arithmetic, spelling, or reading. The child's ability to work with other children in these activities is a measure of his mastery of the art of co-operation.

"Personality is the sum total of interests, insights, attitudes, motives, drives, and patterns of behavior which are to be

found in the individual. Education consists in a succession of achievements toward the development of a stable and desirable type of personality.

"Past and present experiences are of equal importance. His past experience conditions what the child will say, do, think, and feel about each new activity, and how he will interpret it. From each day's experience the child should get all there is in it for him at the time. Each year of school life and every teacher should contribute something to the personality growth of each child.

"The degree to which a person is educated is measured by his ability to think and act wisely. The school tries to select and teach those processes in thinking which help the child to understand an idea or a problem, to make decisions, to arrive at conclusions, and to discover principles.

"The teacher and a group of children grow in ability to make intelligent reactions to problems when they together plan goals, discover means for realizing them, and judge their own accomplishment. * * * *

"Every child needs opportunity to work with his hands, using all kinds of materials and equipment; to develop skills that will make him efficient in earning a living and in getting along with others; to have a hobby and ride it; to have time to play and to use it wisely; to demonstrate good health in his own habits of living; to appreciate and to enjoy art, music, and literature in an active way rather than as an onlooker; to have some idea of places and peoples other than his own home and friends, and to know how they influence his own life; and to be challenged to work hard at whatever he undertakes. If the individual teacher has in mind such goals as these, she can create the kind of learning conditions which will contribute to the continuous growth of the child.

"Each child should be able to see by means of graphs, charts, or by talking it over, that he has made progress each day, week, month, and year. Teachers will help him to understand that growth is measured from the point at which he started, rather than by a line on the yardstick which is the same for every child. He should learn that he may grow more rapidly or more slowly than other children, but that the thing which counts is whether or not he is working to the limit of his ability. By means of a cumulative record which follows the child throughout his school life, all those concerned with making it possible for him to grow can guide his development with real understanding."

—Helen Mackintosh, *Elementary Education*. United States Office of Education. Bulletin No. 4, 1940.

II. THE PRINCIPLES OF EDUCATION UNDERLYING THE CURRICULUM

- A. The curriculum must fit itself into the educational opportunities of the environment. The school must capitalize upon the experiences a child has had before he comes to school, and upon those he continues to have outside of the school's sphere.
- B. The curriculum must provide for the progress of the child to a degree that is consistent with his physiological, psychological, emotional, and social development
- C. The curriculum should be so motivated that the problems which develop within the daily life of the child become the subject matter
- D. The curriculum must coordinate all the educational opportunities of the child's environment
- E. The curriculum must embody unity and correlation of learning activities
- F. The curriculum must provide opportunity for the child to acquire definite skills such as reading, ability to use numbers, and expression in speech and writing, in artistic creation, in music, and in play. These skills should be developed to the degree which experience shows that one's day-by-day living may demand.

III. THE CURRICULUM—DEFINED

The curriculum of the modern elementary school should be made up of the sum total of all the desirable experiences which elementary children should have. These experiences should all work together to bring about the modification of child behavior for desirable attainments.

In a sense, it is true that the fundamental education that one receives does not come only by way of the schools. It comes from reading books; from hearing the radio; from discussions; from contacts with nature; from relationships with others; from experiences met in one's physical environment; and from the influences which customs, institutions, and ideals, in the midst of which we live, exert on one's thoughts and attitudes. This statement does not mean in any way to belittle the place of the school in the educative process. The school exists as an agency to lead the child into desirable experiences and to give him opportunities to develop abilities which will make possible the interpretation of those experiences in his own life and to supply him with the tools and materials for the expression of more desirable reactions.

The experiences by which a child learns may be classified under two headings: those experiences which most naturally occur within the school and those which, by their very nature, must be met elsewhere; however, they may be planned, measured, and interpreted within the school. A teacher who can bring herself to break with the narrow program of the traditional school will make of the schoolroom in which she works an ideal place for the meeting of these two types of experiences. To bring about desirable experiences many media, material, and means are employed:

A. Books

Books that record the experiences of the race; books that picture the lives of people who lived in remote times; books that show the far places of the earth; books of nature; books of stars; books of beauty that compel earnest study and research; books that invite the pleasure of casual reading; books that show the influences of our physical environment; books that give the tables and the processes which must be acquired and understood if one is to be able to make the number of calculations essential to daily living; and books that teach boys and girls to live successfully with one another

B. Space

A schoolroom by its size suggests to the child many activities which are impossible in the narrower confines of his own home. The modern school provides greater area per child, although in the schools that were built in earlier years a similar degree of freedom can be obtained by the use of movable furniture. This permits the clearing of open spaces for activities which demand them. Wise teachers will capitalize on loss of enrollment by either removing surplus desks and seats from the school or putting them in other rooms, halls, or unused corners where they may readily be converted into workbenches by the additions of a few boards. The school may have workshops, a kitchen, a gymnasium, playrooms, furnace rooms, hallways and storage rooms which may all be utilized for that part of the school program which takes place indoors. Unless it is a very unfortunate school, it also has ample play space for outdoor activity.

C. Furnishings

The school has proper-sized desks, chairs, tables, and benches which lend themselves to various types of work. The school has blackboards, bulletin boards, display spaces, musical instruments, a radio, and a phonograph, all of which stand as constant invitations to the children

to active employment. The school has charts, maps, globes, pictures; it may have a slide and film strip projector, moving picture projector, a home economics kitchen, a sewing machine, displays of rocks, small chemical sets and aquariums, a cabinet for filing clippings, reports, and stories. It has a magazine and a bookrack, drawing easels, one or more typewriters, a printing outfit, shelves for partly finished projects and for materials. It has these and any other devices which the program demands and which the ingenuity of the teacher and the children provide.

D. Tools

The school prompts children to make creative efforts by supplying them with hammers, saws, pliers, tin snips, brushes, rulers, measuring cups, cooking implements, and any other simple hand tools which serve the needs which arise in an active school program

E. Materials

The traditional school of the past had paper, ink, and library paste; today the school adds paints and colors of all kinds, lumber, cardboard, large sheets of wrapping paper, twine, tin, wire, nails, screws, sandpaper, cloth, friction tape, wheels, and a long list of other materials which the various activities demand. The securing of many of the necessary materials may be made the responsibility of the children. These materials serve to make the school the natural workshop where children, with the teacher's help, meet and interpret varied experiences and acquire, through activity, the skills that are necessary in both school and community life.

F. The community as a laboratory

While the school may furnish an ideal setting for many of the activities of children, there are still many experiences which by their nature must take place in the home, in the church, on the farm, and in the community; in fact, anywhere except within the walls of the school. The fact that there are experiences which cannot happen in the school does not relieve the school from the responsibility of planning, interpreting, and evaluating these experiences. The sending of children individually or in groups into places where they may meet experiences of this type is most commonly called the "school excursion."

Unfortunately, so much has been written about school excursions which involve taking large groups of children long distances to visit a city, or to explore a problem in a remote place, that teachers are apt to feel that as a teaching technique the excursion has little use in Montana,

especially during wartimes. In its simplest use, however, the excursion is merely going somewhere to find out something. Seen in this light, it has many valuable uses in Montana schools. It may be that the entire school or a group may go somewhere during school hours. If the children are young, an older boy or girl may go with them. A group may make an investigation on the way to or from school, or on Saturday or Sunday; or a committee from a certain part of the district, or a group of children who are going to town on Saturday, may be entrusted by the others with a problem to explore. The excursion naturally comes after the problem arises, but planning beforehand will help the teacher with the school's fact-finding visits in that she can then make use of the best weather, or weekends and holidays, of expected trips by parents, and of known community gatherings. An excursion should have a well-planned purpose, calling for active participation on the part of all. After an excursion has been made, something should be done about it. Some examples of useful excursions in Montana schools are given below:

1. Excursions of the whole school during school hours

- a. The children gather colored leaves from quaking asp, box elder, willow, black birch, dogwood, and other trees and shrubs for October room decorations
- b. The bus driver is invited to come early so the children may stop at Marie's house to see how a barometer works
- c. The school divides and each group goes to a nearby farm that has a telephone. The groups talk to each other and practice telephone courtesy. (Some children in the groups have never talked over a phone before.) By prearrangement the children make a long-distance call to a former teacher, checking by a watch the length of the conversation and the time necessary to put the call through.
- d. The school is taken by the P. T. A. to visit another school six miles away; here the children are the audience for a Health Day Program and are served a "Vitamin" menu by the host school
- e. The school goes out on a day, early in spring, to see water running down a coulee which is usually dry; the muddy water shows the evidences of erosion and teaches soil conservation

- f. The school goes to visit a trustee who lives on a nearby farm; the children discuss with him the possibility of having about half an acre on the school grounds plowed for school gardens
 - g. The whole school attends a school board meeting by invitation; the board explains the necessity of building a teacherage on a space usually occupied by the school gardens; the children agree to use another part of the playground for the gardens
 - h. The school goes with the county agent on several occasions while he shows them such things as: (1) How to recognize common barberry, (2) How to poison gophers, (3) How to tell if poultry have lice, (4) How to make a collection of harmful weeds to aid in the recognition of such weeds
 - i. The school goes to a nearby farm to see a demonstration of a milking machine
 - j. The school goes to the timber to get materials for an Indian house. Older boys cut lodge poles for the tepee and the young children gather dried pine needles, whittle out stakes, and try to find stringy bark with which to tie the poles.
 - k. The school goes to a nearby gravel pit to find round boulders for a border for a flower bed
 - l. The school goes to a nearby coulee where they cut and gather long grass to make a thatched roof for a Brittany farmhouse
2. Excursions by a grade or group during school hours
 - a. A sixth grade measures the average distance between fence posts and counts the number on one side of a quarter section
 - b. A seventh grade measures wheat in a farm granary and checks against the farmer's threshing record
 - c. Some third graders visit Mrs. A's cellar and list all canned fruits and vegetables, as to those raised at home and those bought
 - d. The fifth grade stops the postman and get such facts as: itinerary, weight of mail, and miles on a speedometer. Later the class figures out in class that the postman travelled as much as half way around the earth in a year.
 - e. The eighth grade watches some men setting up light poles. They measure several poles before they are set up and then check their measurements by stake and shadow method of proportion after the poles are set.

- f. A fifth grade history group gathers willows to split and dry for rails for a fence such as Abraham Lincoln built
 - g. Some third graders visit an Indian woman and watch her tan a small skin
 - h. An upper grade science class visits a place where some men are pouring cement for a basement. They make records of the proportion of sand, gravel, cement, and water; time it takes the cement to harden; and find out why the men put iron pieces in the corners.
 - i. Some intermediate girls visit the only farmer in the district who keeps bees. They make notes on all that the farmer tells them and bring back enough honey to treat the whole school at lunchtime.
 - j. The first-grade group is taken by two older boys to visit a nearby farm where they see a litter of twelve pigs
 - k. The same group goes to a farm where a lady gives them cabbage plants for the school garden
 - l. The sixth grade rides over the district with the county agent while he is signing up farmers to raise sugar beets
3. Excursions of committees going to town on Saturday
- The committees:
- a. Visit a graveyard to discover when a local pioneer was born
 - b. Talk with the grain elevator man about local wheat yields, classification, and shipments
 - c. Visit a bowling alley and watch the game. Bring back a scarred bowling pin the owner gives them.
 - d. Visit the county health officer to find out about inoculation for spotted fever
 - e. Visit an elderly lady who came to Montana in a covered wagon; bring back a candle mold she has loaned them
 - f. Visit railway and bus depots and bring back time-tables and advertising
 - g. Visit a large grocery store three times during the year, each time writing down the marked prices of a number of staple commodities. These are compared by the class and graphs are made to show the rise of war-time prices.

- h. See a tractor demonstration that has been advertised by a dealer. Enjoy a free lunch and bring back advertising booklets, and some figures showing tractor achievements.
- i. See a movie; tell the story to the school; and direct the dramatization of several scenes
- j. Watch a trial in a justice court, and report the procedure back to the school
- k. See a football game between two high school teams; the following week the school compares the committee report with the story in the county paper.
- l. See a contingent of army boys leave for service; later interview a member of the draft board and bring back county quota figures
- m. Make other excursions that may be planned by pupils and teacher

IV. THE ORGANIZATION OF GROUPS OF SUBJECTS UNDERLYING THE CURRICULUM

A. Introductory Statement

In this curriculum the subjects have been presented in five groups: The Language Arts; Fine and Industrial Arts; Arithmetic; Natural Sciences; and Social Studies. Even though the subjects are listed in five groups, it is the plan of this curriculum to have the entire program built around the Social Studies program together with their correlation with the other subjects. The five groups of subjects are as follows:

- 1. Language Arts
 - a. Language
 - b. Reading
 - c. Handwriting
 - d. Spelling
- 2. Fine and Industrial Arts
 - a. Music and the Appreciation of Music
 - b. The Fine Arts and the Appreciation of Art
 - c. Homemaking
 - d. Manual creativeness
- 3. Arithmetic

4. Natural Science

- a. Problems of Healthful Living Through Understanding the Human Organism and its Environment
- b. Alcohol and Narcotics
- c. Mental Health
- d. Elementary School Science
- e. Conservation of Natural Resources

5. Social Sciences

The problems of daily living as related to:

- a. Events—History
- b. Places—Geography
- c. Understanding of Civic Responsibilities—Civics and Citizenship

B. Introduction to the Units

There are no fixed lines of demarcation between the different subject area groups; in reality, there is much interrelation in units centering around themes dealing with the problems of daily school and community living which grow largely out of the subject areas of history, geography, health, safety, civics, and citizenship or the Social Studies. In the area of Social Studies, in this curriculum, it is assumed that the experiences which are most common to Montana children, and the experiences whose interpretation will be most valuable to them, may be grouped, for the most part, into forty-eight units of learning. These forty-eight units are distributed among the eight grades of the elementary school, according to a sequence which will be explained.

In each unit, the approaches to the problems of the social studies area are suggested through outlines which recognize that there are distinguishable boundaries that set off the fields that are traditionally known as history, geography, and civics. A close correlation of the materials within these traditional fields is suggested in the arrangement of the outlines, for the purpose of minimizing these boundaries. Applications of the skills achieved in the areas of language arts, fine and industrial arts, the natural sciences, and arithmetic are definitely tied into the problems defined in the social studies. To show possible correlation, and to enable the class to get a comprehensive overview, the outlines for each unit are printed on a large work-sheet page which may be removed from all other units for posting, group consideration, or individual study. When the

work sheet for a unit is not in use, it may be folded into a loose-leaf notebook which should contain also a collection of clippings, pictures, advertisements, class reports and records, lists of films and visual aids, and bibliographies, pertinent to the unit, as the teacher secures these materials. The unit worksheet itself contains an extended bibliography of reading materials which are within the vocabulary ability of the grade to which the unit is assigned.

C. Explaining the sequence of the units

1. Nature of the child as a factor

Many factors should be considered in determining the sequence to be followed in presenting to Montana boys and girls materials which will lead them into new fields of experience and consequent areas of learning. Consideration should be given to some generally accepted principles which have grown out of the study of the nature of the child and his learning processes:

- a. The schoolroom program should provide children with experiences that have reality within their own immediate social living
- b. Insofar as possible, the experiences provided should be progressive and without serious breaks in their continuity
- c. The experiences provided should meet the ever-widening sphere of the children's interests. In the primary grade, children's interests are determined by the immediate contacts of the home and the school. Among the intermediate grade children, interests extend to the community and the broader physical space which the children can explore. Among children in the upper grades or junior high school these interests expand to include an enlarged community of world proportions.
- d. These experiences are cumulative, and form the basis for the children's total learning. It is in the light of these past experiences that children evaluate, both emotionally and rationally, each new experience.

2. Problems peculiar to Montana

In addition to the nature of the child as a factor in defining the sequence of the program there are problems peculiar to Montana which must be considered:

- a. Montana has marked seasonal and climatic changes which cannot escape the observation of the child

- b. There are certain traditions and customs that are statewide in their observance. Many of these come at set times, such as elections, Arbor Day, Pioneer Day. For this reason, such observances very definitely suggest the sequence of certain parts of the school program.
- c. An analysis of the reading materials available in the schools of the State has recently been made. The results of this study suggest that certain subjects are more easily approached at certain times than at others.
- d. Montana has a State textbook law which designates certain textbooks for use in the elementary schools for a given length of time. These textbooks give certain topics which further suggest the sequence for the presentation of the units.

D. The plan of the units

1. First Grade

- a. Things round about children—pets
- b. Things round about them at Christmastime
- c. People round about them at school
- d. People round about them at home
- e. Things round about them outdoors
- f. Things children see in the country

2. Second Grade

- a. Working together in vacation
- b. Things animals do
- c. Winter holidays
- d. How the Indians lived
- e. Books and games for winter days
- f. Rides and trips we can take
- g. Things that come to life in the spring

3. Third Grade

- a. Good citizens at home and at school
- b. How people work together in a community
- c. Animal stories
- d. How people get food, clothing, and shelter
- e. Travel and communication
- f. Friends in books
- g. Playing and growing together
- h. Outdoor friends

4. Fourth Grade

- a. Trade and travel, today and long ago
- b. The early American colonists and their European homelands
- c. Why the French and English wanted Canada, our nearest neighbor
- d. This country of ours

5. Fifth Grade

- a. A new nation takes root along the Atlantic Coast of North America
- b. The new nation reaches across the Appalachians
- c. The nation grows larger and stronger
- d. The land of contrasts, the great West
- e. The roof of the nation, Montana
- f. How the nation acquired far possessions

6. Sixth Grade

- a. The world and the early civilizations that developed upon it
- b. Civilization comes to the peninsulas of Southern Europe
- c. The Middle Ages
- d. The British and French Empires
- e. Russia and her neighbors
- f. Germany and the countries of central Europe
- g. Twenty good neighbors—Latin America

7. Seventh Grade

- a. How Europe discovered a new world
- b. How Europeans made new homes in America
- c. How a new nation was formed
- d. How people lived in the early days of the new nation
- e. How Americans learned better ways of living

8. Eighth Grade

- a. How the people met new problems in their government
- b. How science and invention helped our industries to expand
- c. How becoming a world power brought new problems
- d. How America faces new tasks in the Twentieth Century
- e. How we live and govern ourselves in a war world

V. PRINCIPLES OF STANDARDS OF ACHIEVEMENT UNDERLYING THE CURRICULUM

When any part of the curriculum is completed, there should have been included means to check for achievement. It is less difficult to measure achievement in skills than in attitudes and appreciation. Achievements may be checked in the following manner:

A. By the appraisal of the teacher

The subjective appraisal of the child by the teacher is one of the measurements of the child's achievements. This appraisal is reached through daily observation and by measures which the teacher applies; by the use of informal oral and written tests and discussions.

B. Provision for review and repetition

The psychological principle that a habit or skill is not permanently fixed until there has been sufficient practice can be taken care of by utilizing the many methods of instruction to fix the same habit or skill. Thus, the essential principle can be established by repeating it in different related units in the same grade and succeeding grades. The same essential principle can be first introduced by any one of the methods; for instance, by the discussion or lecture method; it can be taken up again by the problem, the project, the drill, or the demonstration method. Devices such as sand tables, movies, bulletin boards, clubs, excursions and field trips may be used to reenforce the desired attainments.

C. Objectives

Objectives in terms of accepted standards of achievement for measuring the intellectual and emotional outcomes of instruction for the different grades and subjects should be set up. These establish a goal and a purpose for teachers, for pupils, and for schools. The teacher should know what abilities she is to test and what outcomes she is to expect if she is to measure intelligently the growth and achievement at any stage or in any grade, to determine the efficiency of her instruction. Pupils should also know the attainments, as an incentive to success.

D. Attainments

The standards of achievement should indicate the skills, habits, attitudes, abilities, appreciation, and knowledge, including the proficiency to be expected within and at the end of each grade and for each subject. These standards can be measured by informal and formal or standardized tests.

While the standardized tests now available are mainly designed to measure the narrower products of education, such as information and skills in the common subjects, technical experts have by sufficiently ingenious application of technique devised tests that will measure rather accurately any human characteristic, known to exist. Such tests include measures for abilities to think, judge, and reason; measures of motor skill; measures of conduct; measures of interests, appreciations, attitudes, and ideals. The fact that standard measurements in education are sound in method, useful in practical operation, and essential to scientific progress, does not guarantee that they can measure all the achievements in education.

VI. THE DAILY SCHEDULE

In a course of study it is difficult to suggest a daily time schedule or program that will fit all of the schools. Schools in Montana vary widely in physical set-up, in the number of pupils and in the number of grades and groups. The number of grades or groups which a teacher has in a school most directly determines the schedule.

In the school systems of larger towns and cities, each teacher will have, at the most, only one grade, with twenty-five or more children. This city or town teacher has her difficulties which correspond to those of the schoolteacher who has fewer children but several grades. The teacher with the one grade and twenty-five, thirty, or forty children must deal with a correspondingly greater variance of abilities than would be expected in rural schools of much smaller enrollment. To take care of children who differ greatly in ability, teachers usually set up two, three, or even more groups within one grade; it is not uncommon to find classrooms in Montana cities with three or four rather definitely established interest or ability groups.

In rural schools in Montana for the school year, 1941-42:

- 4 per cent of the teachers had all eight grades
- 11 per cent had seven grades
- 15 per cent had six grades
- 20 per cent had five grades
- 20 per cent had four grades
- 30 per cent had fewer than four grades

It is safe to say that fewer than one-fifth of the rural teachers of the State find that they must make provision in the daily schedule for five or more groups. The teachers included in this

one-fifth will certainly find it advantageous to devise some plan of combination of groups of subjects which will reduce the number of daily class recitations under that of the traditional school program.

The elementary school day naturally divides itself into four periods which are from an hour to an hour and a half in length. In making a daily schedule it is recommended that the teacher plan to give one of these periods to the skill aspects of language, including reading, writing, oral and written communication, and spelling. Two of the periods, or roughly half of the day, should be given to solving the problems that arise within the unit under study. These problems are the problems of the daily living of the school and community, and of the far places and remote times to which that living reaches. Of the two periods given to the study of the unit one might be centered largely around the social studies.

Here would be considered much of the factual information which the school has traditionally taught in strictly compartmentalized history, geography, and civics. The other period might center around the problems of health, science, and physical environment. Here would be discovered much of the traditional hygiene, agriculture, nature study, and elementary science. The fourth period would be given partly to the acquisition of number skills, and partly to creative and recreative experiences, such as the making of objects, games, singing, library reading, and such writing and drawing as are necessary to the creative effort. It is obvious that during the period for language skills, and the two periods given to the study of the unit, there will also be many demands for creative expression.

The sequence of these periods will be determined best by the individual experience of the teacher in her own situation. It might be possible to take the entire morning for the study of the unit, leaving the afternoon for the development of skills. An advantage of such a program is that during the morning discussion of the central problem, the need for certain definite skills would develop and serve as a motive for the drill.

In the above situation the schedule would roughly follow this pattern:

- I. 9:00 o'clock: Opening and planning period
- II. Balance of morning: The problems of daily living in the school and community (Social Studies, Health, Science, and application of other subjects)
- III. 12:00 o'clock—Lunch period: Social arts, free play, discussion
- IV. 1:00 o'clock until recess: Skills in reading and language arts, numbers

V. Recess until dismissal: Skills in fine arts, appreciation, creative work

Most teachers in rural schools like to begin the day by giving their attention to the first and second grades. As the work of these groups is largely language, teachers who have first and second grades along with other groups might prefer a rearrangement of the four divisions of the school day which would put the language arts first. In this case the schedule would roughly follow a pattern such as this:

- I. 9:00 o'clock: Opening and planning period
- II. Balance of time until recess: Language arts, with first 15 or 20 minutes given to the first and second grades
- III. Recess until noon: The problems of daily living in the school and community, considering particularly those problems of citizenship growing out of the area of the social studies
- IV. 12:00 o'clock—Lunch period: Social arts, free play, discussion
- V. 1:00 o'clock until recess: The problems of daily living in the school and community, considering particularly problems of health, science (physical environment), safety, and morality
- VI. Recess until dismissal: Drill in numbers, checking of day's work

Teachers who would prefer not to have arithmetic so late in the day could exchange periods V and VI, making sure, however, in this case that the period given to checking the day's work comes before the primary children are dismissed. They, too, should participate in any discussion relative to progress that has been made.

The teacher who prefers putting the more formal part of the program in the morning, leaving the afternoon for the consideration of the general problems of the social studies and the sciences, will carry over from the afternoon periods needs for certain drills and stresses which will be undertaken the following morning.

A teacher who has grouped her children above the second grade into three groups, or who prefers to work with children of similar interests and abilities at one time, might find her program developing something like this:

SAMPLE SCHEDULE FOR A DAY

Time	Approx. Length of Period	Grades One & Two	Group B	Group C	Group D
Time before 9:00		Free Play, Conversation, Individual Plans, and Reports			
9:00	10 minutes	Opening Period: Music, Flag Salute, Discussion, Plans			
9:10	20 minutes	Language Arts			
9:30	15 minutes		Language Arts		
9:45	15 minutes			Language Arts	
10:00	15 minutes				Language Arts
10:15	15 minutes	Writing and Other Language Activities			
10:30	15 minutes		Recess		
10:45	15 minutes	Conversation & Reading about Unit			
11:00	20 minutes		Social Science		
11:20	20 minutes	Free		Social Science	
11:40	20 minutes	Free			Social Science
12:00	30 minutes	Lunch, Free Conversation, Social Arts, Discussion			
12:30	30 minutes	Planned Play, Teacher Assisting			
1:00	20 minutes	Reading Numbers			
1:20	15 minutes		Arithmetic		
1:35	15 minutes			Arithmetic	
1:50	15 minutes				Arithmetic
2:05	25 minutes	Fine Arts (Growing Largely Out of Unit Subject & Season)			
2:30	15 minutes		Recess		
2:45	15 minutes	Reading Science			
3:00	10 minutes		Science		
3:10	10 minutes			Science	
3:20	10 minutes				Science
3:30	5 minutes	General Planning and Checking Period			
3:35	25 minutes	Free	Literature, Library, Club Activity, etc.		

This suggestive schedule is planned for a rural school having three groups above the Grades One and Two. The classification for a school having all six grades above Grades One and two would roughly be Three-Four, Five-Six, Seven-Eight (3-4, 5-6, 7-8) although regrouping of pupils would doubtless be advisable during certain periods of the day, depending upon individual abilities and individual problems. Children who have a common interest in a problem should work together upon that problem regardless of difference in grade.

Very few teachers in Montana (less than 5%) have all eight grades. If one or two grades is missing, a better distribution of time can be arranged, assuring that each child has a program which most closely meets his needs. More than two-thirds of the rural teachers in Montana teach fewer than four grades above Grades One and Two, and many schools do not have both Grades One and Two in a given year. In any of these cases a program providing for four groups would permit a grade-by-grade grouping, if the teacher so desired. Teachers having fewer than four groups may re-divide the additional time to give longer periods.

Even a program such as this, which is set up on a grade-by-grade basis, should be always the servant and never the master of the classroom procedure. Periods should be lengthened when the interest demands, and all time boundaries should be flexible. There will be many problems which the entire school should attack together, but there will be individual problems which arise within the needs and experiences of one child, which he does not share with anyone else. In many cases, the area of a unit on which one group is working overlaps the area of a unit on which another group is working. If the teacher will arrange the forty-eight units which comprise the program of the elementary school in a horizontal pattern, assigning to each unit the approximate time of the year when it might reasonably be expected to fall, she will discover many instances where the units, which several grades will be studying at one time, have much in common. The following pattern is suggestive, with letters used under the unit subjects to show where such relationships are most obvious. The teacher will discover many other correlations.

A Plan Showing Possible Relationships That Exist Between Units Being Studied by Different Grades

	1	2	3	4	5	6	7	8
Early Autumn			Good citizens at home and at school (A)	Trade and travel, today and long ago (I)	A new nation takes root along the Atlantic Coast of North America (A)	The world and the early civilizations that developed upon it	How Europe discovered a new world	How the people met new problems in their government (A)
Late Autumn		Working together in vacation (B)	How we work together in our community (B)		The new nation reaches across the Appalachians (I)	Civilization comes to the peninsulas of Southern Europe (I)	How Europeans made new homes in America (J) (K)	How science and invention helped our industries to expand (I)
Thanksgiving	Things round about us, pets (C)	Things animals do (C)	Animal stories (C)	The early American colonists and their European homelands (K)	The nation grows larger and stronger (M)	The Middle Ages	How a new nation was formed (L)	How becoming a world power brought new problems (M) (N) (E) (O)
Christmas	Things round about us at Christmas-time (D)	Winter holidays (D)	How we get our food, clothing and shelter (L)			The British and French Empires (M)		New tasks that America faced in the Twentieth Century (P)
Mid-Winter	People round about us at school	How the Indians lived (E)	Travel and communication (E)	Why the French and English wanted Canada, our nearest neighbor (Q)	The land of contrasts, the great West (E)	Russia and her neighbors (N)	How people lived in the early days of the great nation (E)	How we live and govern ourselves in a war world (I) (R)
February Birthdays	People round about us at home (F)	Books and games for winter days (F)	Friends we find in books (F)		Montana (Q)	Germany and the countries of Central Europe (O)		
Early Spring	Things round about us outdoors (G)	Rides and trips we can take (G)	Playing and growing together (G)	This country of ours (H)		Twenty good neighbors—Latin America (P)	How Americans learn better ways of living (P)	
Spring	Things we see in the country (H)	Things that come to life in the spring (H)	Friends we find outdoors (H)		How the nation acquired far possessions (R)			

The correlation indicated by the letter "J" might be taken as an example of the development of correlations of this kind throughout the school. It indicates that the fourth grade which is studying trade and travel would find much in common with the fifth grade, since the fifth grade is following the travels of the early Americans who crossed the Appalachians. At the same time, the sixth grade is interested in the early civilizations of the Mediterranean Peninsula, which area was the starting point for much of the trade and travel of the ancient world. Simultaneously, the seventh grade is studying the beginning of trade, while the eighth grade, in its explorations into the help which science and invention gave to expanding industry, is studying the development of new means of travel.

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THE FLAG OF THE UNITED STATES

I. INTRODUCTION

Our schools should work in cooperation and harmony with the State and the nation in providing a right way of thinking and living for the American child. The best protection for our Republic is to provide adequate training and knowledge for the development of good citizenship of our youth. Into the Flag of the United States of America are woven the strength and courage of American manhood, the love and loyalty of American womanhood, and the purity and justice of American ideals. The American Flag stands for the Constitution of the United States. It represents the Declaration of Independence. Waving in the breeze, it signifies the Law of the Land, and symbolizes the Soul of all America. Flying over the school-houses of our nation it proclaims: "Education is the Safeguard of the Nation, the Schoolroom is my Fortress."

II. THE LIVING SYMBOL OF OUR GREAT REPUBLIC

On Flag Day, June 14, 1923, representatives of over 68 organizations met in Washington for a conference, called by, and conducted under the auspices of, The National Americanism Commission of The American Legion, to draft an authentic code of flag etiquette. The code drafted by that conference is printed in a folder entitled, "The Flag, How to Display It, How to Respect It." This folder may be secured by sending to Director, National Americanism Commission, American Legion, Indianapolis, Indiana. (For this information and much inspirational material, see below under Text for Use in the Study of the Flag.) While the rules adopted by the conference have no official government sanction, nevertheless, they represent the authoritative opinion of the principal patriotic bodies of the United States and of Army and Navy experts. These rules are being followed by all of the organizations which took part in the gathering, including 45 other organizations which have since adopted this code, representing over 20,000,000 people. The conference constituted itself a permanent body, so that modifications in the rules can be made if this proves desirable. The rules, as given on the following pages, are from the final corrected draft of the code as brought out of the conference. Legion Posts will find the rules and diagrams worth calling to the notice of school pupils and citizens generally.

III. TEXT FOR USE IN THE STUDY OF THE FLAG

The publication, *The Flag of the United States: Its History and Symbolism*, by Colonel James A. Moss, published by The United States Flag Association of Washington, D. C., is an authoritative textbook suitable for use by the grade and high school pupils of the Montana schools. It is on the adopted supplementary list of texts for Montana schools. This textbook contains sixteen chapters, the headings of which are as follows:

1. Origin and Evolution of Flags
2. Early Colonial Flags
3. Flag of the United Colonies
4. Birth of Flag of the United States
5. Evolution of Flag of the United States
6. Stars and Stripes of the Flag
7. Red, White and Blue of the Flag
8. Education and the Flag
9. Declaration of Independence and the Flag
10. The Constitution and the Flag
11. The Law and the Flag
12. American Ideals and the Flag
13. America's Destiny and the Flag
14. Patriotism of the Flag
15. How to Display; How to Respect the Flag
16. Miscellaneous

At the end of the chapters is a list of several hundred questions covering the entire book which may be made to serve admirably for objective tests. Bare facts alone can not serve as good testing material, especially when such a spiritual and immaterial concept as loyalty to the republic is to be engendered. Colonel James A. Moss has successfully brought together in this book many soul-stirring selections from widely scattered literature which emphasize the meaning of our flag in time of peace. These selections include Secretary Lane's famous Flag Day Address, Makers of the Flag; Nesbit's *Your Flag and My Flag*; and Jacob Riis's stirring account of his view of the flag from a sick-bed in a foreign land. This authoritative textbook, *The Flag of the United States: Its History and Symbolism*, should be in every schoolroom and should be used in connection with history and civics texts. Every pupil in the Montana school system should have an intelligent understanding and a deep respect for the flag of the United States, its history and its symbolism.

IV. THE AMERICAN'S CREED

"I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign nation of many sovereign states; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice, and humanity for which American patriots sacrificed their lives and fortunes. I therefore believe it is my duty to my country to love it; to support its Constitution; to obey its laws; to respect its flag; and to defend it against all enemies."—Wm. Tyler Page

V. RESPECT THE FLAG

"When you see the Stars and Stripes displayed, son, stand up and take off your hat. Somebody may titter. It is in the blood of some to deride all expression of noble sentiment. You may blaspheme in the street and stagger drunken in public places, and the bystanders will not pay much attention to you; but if you should get down on your knees and pray to Almighty God or if you should stand bareheaded while a company of old soldiers marches by with flags to the breeze, some people will think you are showing off.

"But don't you mind! When Old Glory comes along salute, and let them think what they please! When you hear the band play 'The Star-Spangled Banner', while you are in a restaurant or hotel dining room, get up even if you rise alone; stand there and don't be ashamed of it, either! For of all the signs and symbols since the world began there is none other so full of meaning as the flag of this country. That piece of red, white and blue bunting means five thousand years of struggle upward. It is the full-grown flower of ages of fighting for liberty. It is the century plant of human hope in bloom.

"Your flag stands for humanity, for an equal opportunity to all sons of men. Of course, we haven't arrived yet at that goal; there are many injustices yet among us, many senseless and cruel customs of the past still clinging to us, but the only hope of righting the wrongs of men lies in the feeling produced in our bosoms by the sight of that flag.

"Other flags mean a glorious past; this flag a glorious future. It is not so much the flag of our fathers as it is the flag of our children, and of all children's children yet unborn. It is the flag of tomorrow. It is the signal of the 'Good Times Coming'. It is not the flag of your kind—it is the flag of yourself and of all your neighbors. Don't be ashamed when your throat chokes and the tears come, as you see it flying from the masts of our ships on all the seas or floating from every flagstaff of the Re-

public. You will never have a worthier emotion. Reverence it as you would reverence the signature of the Deity.

"Listen, son! The band is playing the national anthem—'The Star-Spangled Banner'! They have let loose Old Glory yonder. Stand up—and others will stand with you. This tribute to the flag is offered to the country in appeal to all men and women of all races, colors and tongues, that they may come to understand that our flag is the symbol of liberty, and learn to love it."—Alvin M. Owsley.

VI. HISTORY OF THE FLAG

The United States flag is the fourth oldest of the national standards of the world: older than the Union Jack of Britain or the Tricolor of France.

The flag was first authorized by Congress, June 14, 1777. This date is now observed as Flag Day throughout America.

The flag was first flown from Fort Stanwix, on the site of the present city of Rome, New York, on August 3, 1777. It was first under fire three days later in the battle of Oriskany, August 6, 1777.

It was first decreed that there should be a star and a stripe for each state, making thirteen of each, for the states at that time had just been erected from the original thirteen colonies.

The colors of the flag may be thus explained: The red is for valor, zeal, and fervency; the white for hope, purity, cleanliness of life, and rectitude of conduct; the blue, the color of heaven, for reverence to God, loyalty, sincerity, justice, and truth.

The star (an ancient symbol of India, Persia, and Egypt) symbolizes dominion and sovereignty, as well as lofty aspiration. The constellation of the stars within the union, one star for each state, is emblematic of our federal constitution which reserves to the states their individual sovereignty except for rights delegated by them to the federal government.

The symbolism of the flag was thus interpreted by Washington: "We take the stars from Heaven, the red from our mother country, separating it by white stripes, thus showing that we have separated from her, and the white stripes shall go down to posterity representing liberty".

In 1794, Vermont and Kentucky were admitted to the Union and the number of stars and of stripes was raised to fifteen in correspondence. As other states came into the Union it became evident there would be too many stripes; so in 1818, congress enacted that the number of stripes be reduced and restricted henceforth to thirteen, representing the thirteen original states; while a star should be added for each succeeding state. That law is the law of today.

The name "Old Glory" was given to our national flag August 10, 1831, by Captain William Driver of the brig, Charles Doggett.

The flag was first carried in battle at the Brandywine, September 11, 1777. It first flew over foreign territory January 28, 1778, at Nassau, Bahama Islands, Fort Nassau having been captured by the Americans in the course of the War for Independence. The first foreign salute to the flag was rendered by the French Admiral LaMotte Piquet, off Quiberon Bay, February 13, 1778.

The United States flag is unique in the deep and noble significance of its message to the entire world, a message of national independence, of individual liberty, of idealism, of patriotism.

It symbolizes national independence and popular sovereignty. It is not the flag of a reigning family or royal house, but of a hundred million free people welded into a nation, one and inseparable, united not only by community of interest but by vital unity of sentiment and purpose; a nation distinguished for the clean individual conception of its citizens of their duties and their privileges, as well as of their obligations and their rights.

It incarnates for all mankind the spirit of liberty and the glorious ideal of human freedom; not the freedom of unrestraint or the liberty of license, but an unique ideal of equal opportunity for life, liberty, and the pursuit of happiness, safeguarded by the stern and lofty principles of duty, or righteousness, and of justice, and attainable by obedience to self-imposed laws.

Floating from the lofty pinnacle of American idealism, it is a beacon of enduring hope, like the famous Bartholdi Statue of Liberty enlightening the world, including the oppressed of all lands. It floats over a wondrous assemblage of people from every racial stock of the earth whose united hearts constitute an individual and invincible force for the defense and succor of the down-trodden.

It embodies the essence of patriotism. Its spirit is the spirit of the American nation. Its history is the history of the American people. Emblazoned upon its folds in letters of living light are the names and fame of our heroic dead, the Fathers of the Republic, who devoted upon its altars their lives, their fortunes, and their sacred honor. Twice-told tales of national honor and glory cluster thickly about it. Ever-victorious, it has emerged triumphant from eight great national conflicts. It flew at Saratoga, at Yorktown, at Palo Alto, at Gettysburg, at Manila Bay, at Chateau-Thierry. It bears witness to the immense expansion of our national boundaries, the development of our national

resources, and the splendid structure of our civilization. It prophesies the triumph of popular government, of civic and religious liberty, and of national righteousness throughout the world.

The flag first rose over thirteen states along the Atlantic seaboard, with a population of some three million people. Today it flies over forty-eight states, extending across the continent, and over great islands of the two oceans; and one hundred thirty million people owe it allegiance. It has been brought to this proud position by love and sacrifice. Citizens have advanced it and heroes have died for it. It is the sign made visible of the strong spirit that has brought liberty and prosperity to the people of America. It is the flag of all of us alike. Let us accord it honor and loyalty.

VII. DISPLAYING THE FLAG AT SCHOOL

The statutory provision of the Montana School Law in regard to the American flag is as follows:

"To procure, by purchase or donation, and to cause to be displayed daily in suitable weather, an American flag, with accompanying necessary fixtures, for each and every school-house in their respective districts. Said flags shall be of dimensions not less than four by six feet, and shall be made from durable material. The school trustees are hereby authorized and empowered to use such portion of the school funds as remain in their hands, and which is not otherwise appropriated, for the purchase and erection of fixtures."—(School Laws of the State of Montana, March 1941, Section 1015, 21 p. 31.)

In good weather, the flag should be raised in the morning when school opens, and it should be lowered when school closes in the afternoon. Raising and lowering the flag may be attended by a ceremony similar to the one used in the United States service. A color guard of three deserving boys and girls may be chosen by Uncle Sam's Boys' and Girls' Club (see *Citizenship Through Character Education*). It should be regarded as a mark of distinction to be thus chosen. One of the guards may lower the flag, and the other two should then step forward to receive it and fold it neatly into a three-cornered bundle. The colors must not be allowed to touch the ground. When the flag is properly folded, one carries it away, guarded by the other two.

When a flag is displayed within the schoolroom, it should not be draped but should be flat against the wall. (For helpful suggestions, see Moss' *The Flag of the United States*, p. 89.)

VIII. SHOWING RESPECT FOR THE FLAG

The children should be taught to face the flag when it is being raised or lowered, or when it is passing in a parade. They should stand at attention and salute. The boys should remove the headdress and hold it at the left shoulder. The girls should salute by placing the right hand over the heart. The evidence of lack of respect to the flag in almost any audience indicates that instruction on this point is highly essential. Children should be taught not to use the flag as decoration on cars or in other ways.

The following eulogy, written by Ignatius I. Murphy, Vice Chairman P. C. National Loyalty League, Hays, Kansas, and dedicated to the American Legion, is contained in many textbooks, and is used widely in schools, in the Army and Navy and by Americanization bodies:

"BEHOLD THE FLAG, purest, most potent emblem of law, order, Christian civilization, that ever saluted the dawn.

BEHOLD THE FLAG, never dropped in dust of defeat, sired by revered fathers of the Revolution, their names imperishably written in letters of gold on the pages of Columbia's history, defying the ages.

BEHOLD THE FLAG, floating in zephyrs of high heaven o'er the eternal capital of a republic, founded on the rock of righteousness, symbol of humanity's fondest, dearest hope, forever proclaiming justice, human brotherhood throughout the land.

BEHOLD THE FLAG, unstained, untarnished, bejeweled, gleaming in darkest night, her triumphant march across the centuries a path of light. Who dare touch with profaning hand this sleepless, majestic guardian of an ardent people, strong, brave, free?

BEHOLD THE FLAG, inspiration of a mighty race, mingling in sentiment of cherished children, native to her soil undefiled, and lovers of liberty from every clime, seeking naught but the common good, yearning to serve mankind 'neath sheltering aegis of the Red, White and Blue.

BEHOLD THE FLAG, immortalized by Washington, her beautiful folds spread from Gulf to Coast by Jefferson, borne aloft by Lincoln in strife of heroes that united as one a sisterhood of States and blended the Blue and Gray in fires of patriotism, preserving every star in the shining standard of national sovereignty. May Old Glory in all the flood of time wave with undimmed radiance and increasing splendor over the fairest expanse of God's earth.

BEHOLD THE FLAG, precious sublime inheritance, blessing of America's faith, power, unity, sanctified by patriot blood. We consecrate anew in o'erflowing measure our hearts, our eager, willing service of hand and brain to thy defense and greater glory. In the sunlight of thy glowing colors, the moving story of thy past, wondrous promise of the future, mayest thou, guided by the heavenly father, lead the nations to loftier heights, nobler aims, worthier deeds, till the sword is beaten into the plowshare and peace, benign, hallowed peace, dwells among all the sons of men in a world republican."

IX. THE PLEDGE OF ALLEGIANCE

All pupils in the public schools of Montana must salute the flag when the teacher, principal, or superintendent asks that this be done. The pledge of allegiance to the flag should be taught in all schools. The pledge reads: "I pledge allegiance to the flag of the United States of America and to the republic for which it stands, one nation, indivisible, with liberty and justice for all."

The child faces the flag, placing his right hand over his heart and when he comes to the words "The flag of the United States" he gracefully swings his hand toward the flag, palm upward, fingers together and straight with the palm. The thumb, too, should be in the same plane with the palm. Giving the pledge should always be done with dignity; it should be an impressive ceremony.

X. THE STAR-SPANGLED BANNER

Children should learn to sing THE STAR-SPANGLED BANNER, and should be taught to stand at attention and to salute when they hear it being played. The late President Harding, in a brief address to the National Flag Conference, said: "Don't you think we ought to insist upon America being able to sing THE STAR-SPANGLED BANNER? Somehow, I would like the spirit of American patriotism and devotion enabled to express itself in song. I hope you will include it in your code as one of the manifestations of reverence to the flag."

XI. BIBLIOGRAPHY

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- Tappan, Eva March. *The Little Book of the Flag*. Houghton Mifflin Company, Boston, 1937
- Wheeler-Holohan, Vincent. *Flags of the World, Past and Present; Their Story and Associations*. Frederick Warne & Co., 79 Madison Ave., New York, 1939

The Flag of the United States of America. This is a wall chart, showing how to display the flag on practically every occasion; how to salute the flag; and where and when to display the flag. Hertzberg Craftsmen, Des Moines, Iowa.

THE STAR-SPANGLED BANNER

Oh, say, can you see, by the dawn's early light,
What so proudly we hail'd at the twilight's last gleaming,
Whose broad stripes and bright stars, thro' the perilous fight,
O'er the ramparts we watch'd, were so gallantly streaming?
And the rockets' red glare, the bombs bursting in air,
Gave proof thro' the night that our flag was still there.
Oh! say, does the star-spangled banner still wave
O'er the land of the free and the home of the brave?

On the shore dimly seen thro' the mists of the deep
Where the foe's haughty host in dread silence reposes,
What is that which the breeze, o'er the towering steep,
As it fitfully blows, half concealed, half discloses?
Now it catches the gleam of the morning's first beam,
In full glory reflected, now shines on the stream.
'Tis the star-spangled banner. Oh! long may it wave
O'er the land of the free and the home of the brave!

Oh, thus be it ever when free men shall stand
Between their loved homes and the war's desolation;
Blessed with vict'ry and peace, may the heav'n-rescued land
Praise the pow'r that hath made and preserv'd us a nation!
Then conquered we must, when our cause it is just,
And this be our motto: "In God is our Trust!"
And the star-spangled banner in triumph shall wave
O'er the land of the free and the home of the brave.

HOLIDAYS AND SPECIAL DAYS FOR SCHOOL OBSERVANCE

Exercises as an outgrowth of school work in observance of special days have fine educational values and should serve to stimulate greater interest in the school work. These exercises may be planned in correlation with language, reading, civics, history, geography, health, art, and music. Exercises, so evolved, are placed on a sound educational basis. The special day observance should be anticipated and planned for over a period sufficiently long to assure results satisfying to the children and worthwhile educationally. Little or no extra time need be required for rehearsals if the classwork and lessons are used to contribute to such programs. The following comprise the list of special days, those starred being holidays on which school should be closed: (See School Laws of Montana, Chapter 83, Section 1062.)

*Labor Day, first Monday in September. Appreciation of importance of work.

Constitution Day, September 17. Date of signing of Constitution by members of Constitutional Convention, 1787.

Columbus Day, October 12. Date of discovery of America.

Roosevelt Day, October 27. Also called Navy Day.

Hallowe'n, October 31. Emphasis on clean fun and regard for property of others.

Pioneer Day, first Monday in November. Pioneers of Montana.

Election Day, first Tuesday after the first Monday in November in even years. Civic importance.

Armistice Day, November 11. Emphasis on peace and loyalty.

*Thanksgiving Day, last Thursday in November. Only day annually proclaimed. Gratitude for blessings.

*Christmas Day, December 25. Giving of gifts. Christmas story.

*New Year's Day, January 1. New beginnings.

Temperance Day, January 16. Prohibition Amendment (18th) passed 1919, effective January, 1920.

Thrift Day, January 17 (Franklin's birthday).

Lincoln's birthday, February 12. Savior of his country.

Washington's birthday, February 22. Father of his country.

Easter Sunday. Meaning.

May Day, May 1. Also called Child Health Day.

Mother's Day, second Sunday in May. Appreciation of mother.

Father's Day, third Sunday in June. Appreciation of father.

Arbor Day, second Tuesday in May. Meaning. Appreciation of plants.

World Goodwill Day, May 18. For furthering international goodwill and peace.

*Memorial Day, May 30, also called Decoration Day. Respect to soldiers.

Flag Day, June 14. Significance of the flag.

*Independence Day, July 4. Meaning. Emphasis on same Fourth of July celebrations.

THE LANGUAGE ARTS PROGRAM

The Language Arts

The Language Arts comprise a broad field in which the traditional school subjects of Language, Reading, Writing, and Spelling are included. The child normally acquires these skills in the order named: first he learns to speak, then to read, then to write from copy, and finally to spell so that he may write without using a copy. (An accompanying table indicates the average rate at which children acquire these skills.)

The Program in Language

The Program in Language for Montana Elementary Schools consists of three parts. Each of these three parts is dependent upon each of the other two and each part can be made effective only when it is used in conjunction with the other two. The teacher should have a comprehensive overview of these three parts.

I. The Course of Study in Language

This is a section of the Elementary Course of Study for Montana Schools and the teacher who refers to it will find that it does a number of distinct things:

- A. It states briefly the philosophy of teaching language
- B. It sets up the objectives for language in Montana elementary schools
- C. It outlines numerous procedures by the use of which the teacher may be helped in reaching these objectives
- D. It refers to stories, games, poems, and books which the teacher will find useful as the materials of the drills and activities necessary to the teaching of language skills
- E. It lists for each grade the attainments or outcomes of learning which it is hoped all children will achieve
- F. It lists many standard testing devices which the teacher may use in measuring the degree to which children are able to achieve these attainments
- G. It suggests a brief bibliography of professional books for the teacher

II. The Textbooks

English Experience Series, by Neville-Kelly-Thorp, Rand McNally & Company, New York

III. The Application of the Uses of Language to the Forty-eight Social Science Units

These applications appear in a column on each unit work sheet. They have a distinct purpose which is to help the child discover that language is not an end in itself. We do not learn to talk, write, read, and spell merely to talk, write, read, and spell, but to use these skills in the communications which are necessary among people who live in a social world.

A Table of Vocabulary and Speeds Which Might Reasonably be Expected of Boys and Girls in Each Grade

(It would be unfortunate if the use of this, or any other measuring device or table, would suggest to the teacher that all children are expected to have the same abilities and must be poured into a common mold, or that grades or other artificial time or area boundaries mark definite stopping places in the development of skills.)

	Ar- rival at School	End of Grade 1	End of Grade 2	End of Grade 3	End of Grade 4	End of Grade 5	End of Grade 6	End of Grade 7	End of Grade 8	Au- thor- ity	
Speaking Vocabu- lary (Words)	2000	2800	3600	4500	5400	6400	7500	8700	10000	Buckingham Dolch & Thorndike (Average)	It is very difficult for the teacher to measure speaking vocab- ulary. It is a fair assumption that a child who speaks the vo- cabulary of his grade, and who has a fair breadth of living experiences about which he talks freely, is meeting the aver- age vocabulary indicated in this table.
Recogni- tion, or Reading Vocabu- lary (Words)	0	620	1220	2500	3600	4500	5400	6100	7000	Cole Parker (Average)	Reading vocabulary can be pretty definitely gauged by the fa- cility with which a child reads books and other materials which are definitely planned for his grade, since these materials are scientifically checked against vocabulary lists. If a child reads these carefully, he no doubt is making satisfactory progress in acquiring reading vocabulary.
Spelling Vocabu- lary (Words)	0	few	300	700	1250	1800	2350	2950	3500	Horn	The measurement of spelling vocabulary is a difficult technical process. The spelling vocabulary is the number of words the child can spell properly in his written use of words. Formerly, spellers prided themselves on long lists of words, 10,000 being commonly offered in the elementary school. Studies by Dr. Horn and others indicate that if a child can spell about 3,500 words he will meet his ordinary spelling needs.
Reading Orally Per Min. (Words)	0	108	115	122	129	136	143	150	155	Judd	Anyone can readily check (oral or silent) reading speed, using a watch with a second hand, and unfamiliar reading material suited to the grade of the child. Children being tested should not be urged to "see how fast they can read." It is probably better if they do not know they are being timed. Mere pro- nouncing of words or silent skimming at a rapid rate is value- less unless there is comprehension.
Reading Silently Per Min. (Words)	0	94	126	156	180	200	222	240	250	Gray Starch Courtis (Average)	
Writing Per Min. (Letters)	0	20	30 A 35 F 11	40 A 45 F 14	50 A 50 F 16	60 A 55 F 18	70 A 60 F 20	75 A 65 F 22	75 A 70 F 24	Missouri Course of Study	Writing speed is easily measured, but speed must always be measured with legibility as indicated on a standard scale. The speeds indicated are for cursive writing above the third grade. Not much has been done in measuring the speed of manuscript writing. (Top number is letters per minute; "A" numbers show grade on Ayres scale; "F" numbers show grade on Freeman scale.)

COURSE OF STUDY IN LANGUAGE

General Suggestions

I. Introductory Statement

Language is one of the most necessary of human skills. Without the ability to make his wants known an individual could not long survive. Language is essential to all other skills. It is just as broad and varied as life experiences are broad and varied. As the school plans for the individual an enrichment of his experiences, it must plan a corresponding widening of his language horizon. The child comes to school with as many as two thousand words in his pre-school vocabulary. He has acquired these words from life experiences. The language that he acquires in school must also develop from natural life situations. It must develop to meet needs which he himself recognizes and feels. Language is either oral or written, but a child can neither write nor speak unless he has something to say.

II. Objectives

- A. The first purpose of language instruction is to teach the child to express himself effectively and to understand fully the expressions of others
- B. The second purpose is to develop within the child that ability to appraise and tolerate another's views, which is essential to democratic living; to develop the ability to accept criticism courteously and to give it kindly
- C. The third purpose is to teach the child to discover and appreciate such qualities as beauty, morality, and humor

III. Experiences Essential to the Attainment of These Objectives

To achieve these objectives the child must be provided with experiences of many kinds. For convenience these experiences are here divided into five classes:

A. General language experiences

- 1. Experiences which will create in the child a desire to speak; to write; and to read what others have written
- 2. Experiences which will increase the child's vocabulary and teach him careful distinctions in the correct use of words
- 3. Experiences which will give the child an understanding of the common courtesies of social intercourse
- 4. Experiences which will correct ungrammatical usages gently, patiently, and persistently

There is no language "mold." Language is a part of personality and if a child has a "flair that lifts" his expression above the average, or an originality in what he says, he must not be discouraged in expressing himself. Language teaching must be personalized and individual.

The materials of language practice will come from every minute of the school day, and its uses will carry over into every part of the school curriculum. There should still be periods set aside, however, for presenting definite language skills for which a need has been established.

B. Experiences in oral language

1. Experiences which will encourage free expression in conversation, which is the commonest form of oral expression
2. Experiences which will teach the child good language usage on the part of classmates, teachers, and in the speech and writing of others
3. Experiences which will give the child the ability to speak loud enough to be heard by those whom he addresses
4. Experiences which will make his speech pleasing as well as meaningful, and give his body poise, freedom, and expression

Oral expression is clearer, more natural, and less laborious than written expression and has infinitely greater use in life. For this reason the larger part of language use in school should be oral. Speech is easiest and most natural in an atmosphere that is informal and free from restraint. Language habits are acquired largely by imitation. Therefore, the teacher must use care in the accuracy and adequacy of her own expression.

C. Experiences in written language

1. Experiences which will teach the child to spell correctly those words in his vocabulary which he does not spell correctly without instruction
2. Experiences which will make the child's writing legible enough to be read by those who will read it
3. Experiences which will teach the child the use of punctuation, capitalization, and accepted forms
4. Experiences which will enable the child to write friendly letters which are friendly, and business letters which are business-like
5. Experiences which will give the child an ability to express himself through writing in any of the many situations which demand written expression, such as diaries, records, and any original thought which should be preserved

D. Experiences in the technical aspects of language

1. Experiences which will teach the child to recognize and use sentences, and later to group sentences into paragraphs, and to effectually organize what he says and writes
2. Experiences which will teach the child those elements of technical grammar which have value for him in expressing himself or in understanding the expressions of others. He should first see that this value is actual.
3. Experiences which give the child an understanding of the formalities in the procedures of clubs and organizations

E. Experiences in memorization

1. Memorization of things which the child likes which will enrich his vocabulary and improve his forms of speech
2. Memorization of things which the child likes which are a part of the tradition of the race and of his country—things he will meet many times in his reading and listening and which will contribute to his understanding and pleasure

While many situations in language usage involve vocabularies common to children and adults, children should not be expected to use or appreciate adult vocabulary.

IV. Texts

The texts in use are:

A. English Experience Series, by Neville-Kelly-Thorp

1. Fun With English—Grade Three
2. Adventures in English—Grade Four
3. English in Practice—Grade Five
4. English at Work—Grade Six

B. Junior Units in English, by Paul-Kincheloe-Ramsey

1. Book One—Seventh Grade
2. Book Two—Eighth Grade

V. Activities and Procedures

Language is a social activity; therefore, it should be taught through the use of social situations which prevail in life.

A. Vocabulary-building activities

1. Direct
 - a. Word-building exercises, word similarities, prefixes, suffixes
 - b. Making a class or individual dictionary
 - c. Understanding and using synonyms, antonyms, homonyms

- d. Using meaningful and colorful adjectives and adverbs
 - e. "Substituting better words" exercises
 - f. Substituting vigorous, correct expressions for slang
 - g. Learning colorful Montana names and expressions
 - h. Eliminating over-worked "and's," "so's," and "but's"
- B. Activities which teach courtesy in speech
1. Listening politely while others speak
 2. Making contradictions and suggestions courteously
 3. Avoiding monopolizing the time of the class
 4. Refraining from causing embarrassment by laughing at others
 5. Guarding the temper when one's opinion is attacked
 6. Using common niceties, such as "please," "thank you," "excuse me"
- C. Activities that prepare for life's speaking situations
1. Conversations, use of the telephone
 2. Discussion and making of plans for group enterprise
 3. Short talks, persuasive speeches
 4. Formal reports of proceedings
 5. Participation in formal and informal meetings
 6. Announcements, interviews, programs
 7. Narratives: Telling what happened, reporting experiences
 8. Telling "How to do it," "How to get there," "What it was like"
- D. Letter-writing activities
1. Real, friendly letters to real people
 2. Business letters necessary to the conduct of class activities
 3. Invitations to school affairs, acceptances of invitations
 4. Notes of thanks, sympathy, and apology growing out of real situations
 5. Notes of greeting and congratulations
- E. Some other written language activities
1. Records of occupational and avocational interests
 2. Creative spontaneous expression
 3. Minutes and records of meetings
 4. Records or stories of science and nature
 5. Experience stories, home and farm stories
 6. Travel stories, Montana stories
 7. Writing about subjects suggested in social science units

- F. Motivating activities which are valuable in language expression
1. Games, dramatic plays
 2. The school newspaper
 3. Club work and class organizations
 4. Choric speech
 5. Bulletin board notices
 6. Note-taking for references
 7. Programs, radio, putting on shows
 - a. For occasions when visitors are invited
 - b. For presentation in another room or at another school
 - c. For county "meets" or "achievement days"
 8. Making class books, or individual books and booklets
 - a. Poetry, read or heard
 - b. Travels and trips
 - c. Original stories or verse
 - d. Record of school activities and events
 9. Making collections of forms of all kinds to fill out
 10. Making original riddles and quiz programs
 11. Participating in essay contests, "naming," and radio contests
 12. A record of Montana weather
 13. Excursions and trips
 14. Writing recipes and directions
 15. Interviewing local characters and recording their stories
 16. Comparing work with standards and norms

VI. Measuring Results

A. Oral language

The teacher who keeps a cumulative record of her evaluations of a child's oral recitations will have a record which is useful both for remedial work and as a chart of pupil progress. There is definite value in having other teachers and critics listen occasionally to a child's speech, since the judgment of a stranger is apt to be objective.

B. Written language

Letters, one-paragraph compositions, original verse, and other writings of each pupil kept in a file provide the basis for definite measurement of pupil progress. Comparison of such compositions with similar work of pupils in other schools is made possible through the use of standardized composition scales. Some of these which are available for use at the elementary school level are:

1. Breed, F. S., and Frostic, F. W., A Scale for Measuring the General Merit of English Composition in the Sixth Grade, *Elementary School Journal*, vol. 17, pp. 307-325 (January, 1917)
2. Lewis, E. E., *Lewis's Scale for Measuring Special Types of English Composition*, World Book Company, New York (grades 4-12)
3. Thorndike, E. L., *The Thorndike Extension of the Hillegas Scale*, Bureau of Publications, Teachers College, Columbia University, New York (all grades)
4. Van Wagenen, M. J., *Van Wagenen English Composition Scale*, World Book Company, New York (grades 4-12)

C. Technical language

The technical aspects of language can be more easily and objectively measured than oral or written composition. The teacher should consult the chart of abilities in language in the following section, and test pupils frequently to measure their progress. Standardized tests are available to make possible the comparison of pupil progress with accepted norms. Some of these that have wide usage are:

1. Greene, H. A., and Ballenger, H. L., *Iowa Elementary Language Test*, Extension Division, State University of Iowa, Iowa City, Iowa
2. Pribble and McCrory, *the Pribble-McCrory Diagnostic Tests in Elementary Language*, C. A. Gregory Company, Cincinnati, Ohio
3. Charters *Diagnostic Language Tests*, Pronouns, Verbs, Miscellaneous A and Miscellaneous B, Grades III to VIII. Public School Publishing Company, Bloomington, Ill.
4. Charters *Diagnostic Language and Grammar Tests*, Pronouns, Verbs, Miscellaneous, Grades VII and VIII. Public School Publishing Company, Bloomington, Ill.
5. *New York English Survey Tests*, Language Usage, Sentence Structure, Grades IV to VIII. Public School Publishing Company, Bloomington, Ill.
6. *Wilson Language Error Test*, Grades III to XII. World Book Company, Chicago, Ill.
7. *Sangren Information Tests for Young Children*, Nursery-Kindergarten. World Book Company, Chicago, Ill., 1930

The teacher should see also the standard achievement tests listed under Arithmetic; V. Testing Materials; B. Standardized Tests

VII. Attainments

For convenience, the attainments which might reasonably be expected of the pupils in each grade, if their work is to compare favorably with the norms established in standardized tests, are listed under "Attainments" near the end of the outline for each grade.

VIII. Bibliography

A. Pupil's tests and workbooks in language

(No attempt has been made in this bibliography to list all language materials available. There are many other books. Teachers should write to the publishers for descriptive literature, explanations of grades for which the books are intended, and prices. Many of the books here listed represent series which include separate books for several grades. In some cases pupil workbooks and teacher's manuals are available.)

1. Bair, Frederick, Neal, Elma A., and others, *Knowing Your Language*, The Macmillan Company, Chicago, 1941
2. Burleson, David S., and Cash, Laurie, *Adventures in English*, Allyn and Bacon, Chicago, 1941
3. Center, Stella S., and Holmes, Ethel E., *Elements of English*, Allyn and Bacon, Chicago, 1934
4. Cooper, Frank B., and Vetting, Ida F., *My First Language Book*, Rand McNally & Company, Chicago, 1930
5. Ferris, Florence K., and Keener, Deward E., *Essentials of Everyday English*, Laidlaw Brothers, Chicago, 1939
6. Goddard, Mabel, Camp, Louise S., and Lycan, E. H., *American English*, J. B. Lippincott Company, Chicago, 1939
7. Hatfield, Wilbur W., and others, *English Activities*, American Book Company, Chicago, 1936
8. Hasic, James F., and Hooper, C. Lauron, *American Language Series*, Rand McNally & Company, Chicago, 1932
9. Jones, Easley S., *Live English*, D. Appleton-Century Company, New York, 1939
10. Kibbe, Delia E., and others, *Handbook of English for Boys and Girls*, Scott, Foresman and Company, Chicago, 1939
11. Kirby, Thomas J., and Carpenter, Millington F., *Pupil Activity English Series*, Harcourt, Brace and Company, Chicago, 1930
12. Lyman, R. L., and others, *Daily-Life Language Series*, Ginn and Company, Chicago, 1934
13. O'Rourke, L. J., *We Talk and Write*, Scott, Foresman and Company, Chicago, 1942
14. Paul, Harry G., and others, *Junior Units in English*, Lyons & Carnahan, Chicago, 1940
15. Salisbury, Rachel, and Leonard, J. Paul, *Thinking in English*, Scott, Foresman and Company, Chicago, 1940
16. Boylan, William A., and Taylor, Albert S., *Graded Drill Exercises in Corrective English*, Noble and Noble, Publishers, Inc., New York, 1940
17. Teuscher, Ruth H., and others, *Building Language Habits*, Harcourt, Brace and Company, Chicago, 1940
18. Threlkeld, A. L., and others, *Language in Action*, J. B. Lippincott Company, Chicago, 1934
19. Tressler, J. C., and Shelmadine, Marguerite, *Relating Experiences*, D. C. Heath and Company, Boston, 1940

B. Books for teachers

1. Cather, K., *Educating by Story-Telling*, World Book Company, New York, 1918
2. Charters, W. W., and Paul, H. G., *Games and Other Devices for Improving Pupils' English*, Bulletin No. 43, 1923, Department of Interior, Bureau of Education, Washington, D. C.
3. Conrad, L. H., *Teaching Creative Writing*, D. Appleton-Century Company, New York, 1937
4. Deming, A. G., *Language Games for All Grades*, Beckley-Cardy Company, Chicago, 1919
5. *Grammar and Usage in Textbooks on English*, Bureau of Educational Research, Bulletin No. 14., University of Wisconsin, Madison, 1932
6. Horn, E., *A Basic Writing Vocabulary*, University of Iowa, Monographs in Education, First Series, No. 4, State University of Iowa, Iowa City, 1926
7. King, Myra, *Language Games*, Education Publishing Company, Boston, 1908
8. Lyman, R. L., *The Enrichment of the English Curriculum in English*. English Monograph No. 39. University of Chicago Press, Chicago, 1932
9. McBroom, Maude, *The Course of Study in Written Composition for the Elementary Grades*, University of Iowa Monographs in Education, First Series No. 10., College of Education, State University of Iowa, Iowa City, Iowa, 1928
10. National Council of Teachers of English, *An Experience Curriculum in English*, English Monograph No. 4. D. Appleton-Century Company, New York, 1935
11. Partridge, E., and Partridge, G., *Story-Telling Home and School*, Sturgis and Walton, New York, 1913
12. Post, Emily, *Etiquette*, Funk and Wagnalls Company, New York, 1931
13. Scott, Z., *How to Teach English*, Houghton Mifflin Company, Boston, 1929
14. Weeks, R. R., *A Correlated Curriculum*, Report of the National Council of Teachers of English, D. Appleton-Century Co. New York, 1936

BEGINNING PERIOD

Preschool and First Grade

I. Introductory Statement

The language work of the beginning period is quite informal. It is necessary that the child be taught to talk without tension and embarrassment. The exercises used should involve groups of children so that there are audience situations. From timid children the teacher may accept at first a nod of the head as expressing a reply. Later one-syllable answers will come, and eventually sentences.

II. General Objectives of This Period

- A. To build in the child the desire to talk, and to establish a few proper habits of speech
- B. To build in the child the desire to write down what has been said
- C. To develop the ability and habit of speaking in sentences; i. e., to develop sentence sense
- D. To provide ample opportunity for developing in the child such accurate observation and straight thinking as will result in reliable, interesting accounts and narratives
- E. To develop the power of listening
- F. To develop a sense of simple sequence
- G. To encourage the use of words: adding to the child's vocabulary
- H. To give a few uses of capitals and simple punctuation (see V. Attainments)
- I. To encourage the child to memorize things which he enjoys repeating
- J. To develop the use of simple forms of courteous greeting and discourse

III. Text

There is no adopted text for this grade. It is hoped the teacher may have available a great quantity of attractive toys; objects; and pictures and reading material, including advertising matter, supplementary school books, story books of all kinds, primary workbooks, children's magazines, and books and pictures which the children bring from home.

IV. Activities and Content

A. Conversation

Language training should begin the first day of school, as free and informal, but carefully direct conversation. There is no formal assignment for the conversation lesson and (at

least for the pupil) no preparation. These conversations develop naturally and deal with actual experiences which the children have had. These experiences will center about pets, the home, school, friends, and trips. Children should talk without raising their hands, but they should learn that it is important that only one child should speak at a time and that all should contribute to the conversation.

The teacher must discover devices to encourage the timid child. Possibly she may discover from parents or other children some fact or incident which can be brought up as the basis for conversation. The teacher might overhear a conversation between the timid child and another child and gradually induce the former to enlarge upon and discuss the subject of this conversation. The teacher may assign the timid child a purposeful activity that requires an oral report. A conversation such as this might easily develop:

"Jean, please look in Donna's desk (Donna is absent). See if her crayons are there."

"They are not here, Miss Smith," or possibly

"Yes, here they are, Miss Smith."

"Bring them to me, please; I want to use them this morning. Jean, before you go home please remind me to put them back, will you? I may forget. And Jean, please remind me when Donna comes back to tell her that I used her crayon. I shall want to thank her."

Complete informality in discussion is a splendid weapon to disarm timidity. There are many kinds of activities which will promote conversation. The two which are probably most useful in the first grade are the informal lesson, and the planning lesson. An early objective is to get the child to talk in sentences and later to join two or three sentences together. The three-sentence composition, either written or oral, is a desirable type for early narration as it gives an opening and a closing sentence and a connecting sentence between the two.

1. Informal lessons

This type of lesson shows the child that he has something to talk about. There are many sources for the material of the conversation.

a. Recalling a home experience

It is most natural after the teacher or a child has introduced a subject for it to become a theme for general conversation. Each child may have something to contribute. There is danger that the child who introduces the subject may take all the time. Then it is not a conversation, but a narrative or a reproduction.

b. Discussion of a classroom experience

The teacher may have a new hat or may bring to class an odd toy. A child may bring a pet to school, a chair may break, a window blind fly up, or the wind may tear the flag. The noon lunch, a visitor, the passing mail truck, or a sudden storm will provide excellent subject matter. The thing that can be seen, handled, or heard is the best subject. While it is there, it can't be forgotten and its qualities are constantly suggesting themselves. It eliminates to a large degree the confusion of ideas and concepts that hinder intelligent conversation even among adults.

c. Pictures

Next to having or seeing an object or a scene, a good picture is an excellent source of conversation material. The conversation is about the picture or what is implied in the picture. It is still conversation, however, and is not a reproduction or a narration of a subject suggested by the picture.

d. Conversation of others

Overheard and remembered conversations of adults or other children might form a basis for conversation material

e. Reading as a source of subject matter

Language cannot be divorced from reading. As the children begin to read, each reading lesson will supply conversation subjects.

2. Planning lessons

Interesting conversation material may arise from plans children are making to take a trip, set up a Christmas tree, make a new scene on the board or sand table, or undertake any new activity. The planning lesson is slightly more formal, in that the suggestions must be subjected to some analysis and those that seem most valuable are probably recorded, to be put into practice later. An excursion should always have a definite purpose although unexpected things may happen and unforeseen discoveries may be made. The planning conversation before the trip should stimulate each child to suggest what he thinks might be found.

B. Reproduction

Reproduction grows very naturally out of conversation. It is an easy step from a statement made or a suggestion offered to those who are participating in a conversation, to an oral reproduction, which is merely a more formal and more elaborate statement made, probably to the same listeners. The transition may be made easier, if necessary, by assign-

ing definite parts to certain children and then letting them be assembled into the complete reproduction. When all have finished, one child may summarize what has been said.

Two types of reproduction which can be used advantageously in the first grade are explanation and story telling

1. Explanations

Under this head we might group such explanations as those which tell how something is done, the giving of directions or other definite forms of information, and the making of announcements explaining coming events, group plans, or instructions from the teacher. This is a development beyond conversation in that now the content takes on new meaning and importance. What is said must be correct, and must be clear to the explainer so that he may make it equally clear to the listener. The vocabulary becomes important, as words must be used which carry the same meaning to avoid the necessity of repetition and so that the parts of the explanation come in proper sequence. Voice and posture now have added meaning, too, for the speaker must be heard and understood.

2. Narration (story telling)

In the first grade the first stories come easily from the experiences of the child, and they should be stories that the child enjoys telling. Later on he may tell fanciful stories and, of course, he will repeat stories that the teacher or someone else has told. Unlike conversation, narration must definitely develop the sequence of events and the ending. After the story is told, there should be a period of general discussion and criticism. Few stories should be told more than once.

C. Dramatization and dramatic play

Dramatization primarily teaches poise, but it also promotes sequence, imagination, vocabulary, and understanding. The objective should not be a highly finished production where such a result depends upon repetition to the point of mechanization. The more impromptu and informal the dramatization the better. Dramatic play may be employed many times during a day and should never be considered as a formal technique set off by itself for a certain period or Friday afternoon. A word or a phrase may be "acted out." The child may dramatize something he can't tell otherwise. The drama may be without words or it may involve conversation.

D. Correction of errors

After the child has begun to talk freely, corrections of errors may be begun. The child should be taught that pure speech is beautiful and is the sign of an educated person. The

teacher must watch for the point where too avid corrections of errors, pronunciation, and enunciation are holding back the child's expression. After all, what he says is more important than how he says it.

E. Seasonal subjects

A subject which the child discovers he wants to introduce into the conversation is probably worth a dozen that the teacher suggests. However, the purpose of the school is to broaden experience, and without the addition of new subject matter, the child's conversations are apt to fall into a pattern of usage. Some suggestions to the teacher are offered here which might be useful, particularly at the beginning of the year when spontaneous offerings of subject matter from the children may be lacking. Later on, the outline on the unit work sheets should prove rich sources of conversation subjects, but seasonal changes will constantly suggest interests which might well be followed.

I. Autumn

- a. Let the children bring a pet or toy to school and give all a chance to discuss it, letting the one who brought it tell an extra story about it
- b. Let the children see an appropriate picture for several days, and then encourage discussion about it
- c. As opportunity presents, remark quietly about courtesies shown by various members of the class
- d. Let the children discuss seasonal home situations such as haying, harvesting, threshing, canning, storing vegetables, putting up storm windows, chickens molting
- e. To remedy careless enunciation and pronunciation habits, play ear-training games involving much repetition of the correct form. For example: The teacher chooses several objects, with names beginning with the desired initial sound, which she conceals behind her back, and asks the child to choose one hand and then name the object
- f. The teacher reads and tells many stories to the children at this stage. These may be such stories as "Epaminondas and His Auntie," Bryant—Best Stories for Children, or "Elephant Gay," "The Rabbit That Was Afraid," "Fun for Mr. Nobody," Hahn, in the Story Way, both from Houghton Mifflin.
- g. Read for enjoyment and memorize such poems as: "The House Cat," Wynn—The Poetry Book, I, (Rand McNally) "Animal Crackers," The Poetry Book, I, (Rand McNally) Poems for Boys and Girls, Mother Goose Rhymes, Childcraft I

- h. Give each child a card with his name, age, address, and grade in school printed on it. Glue it to his chair, or place it where he will see it constantly.
 - i. With approaching cool weather, the teacher may let the children discuss the changes they observe in nature at this time of year, the different care they must give their pets, the necessity for more wraps, etc.
 - j. Let the children report seasonal news to the school paper.
 - k. Play games in which color is involved and the use of "is" and "are," as "Mary's dress is red." Bring changing leaves from willow, box elder, dogwood, and other trees and shrubs, for discussion and comparison with a color chart.
 - l. Read Halloween stories suitable for this grade, and lead the discussion by asking questions that will confine the pupil's sentences to one line of thought
 - m. Let the pupils dictate simple sentences about stories they have heard which the teacher writes on the board. The children should notice that each sentence begins with a capital and ends with a period.
 - n. Learn Halloween songs and plan a program
 - o. Read poems to the class for their enjoyment, some to be memorized:
 - "The Lamp Lighter," Stevenson
The Poetry Book II, Rand McNally
 - "The Little Elf Man," Bangs
Literature for Reading and Memorization,
Book III, Iroquois
 - "Only One Mother," Cooper
Literature for Reading and Memorization,
Book III, Iroquois
 - "Time to Rise," Stevenson
The Poetry Book I, Rand McNally
 - p. Let the class make up a story, or dramatize a picture chosen for discussion
2. Thanksgiving and Christmas
- Ask the children to report on changes that come at this time of the year to trees, grass, flowers, birds, fruit, seed, sky, and season
- a. Discuss animal preparation for winter and home preparations. How do the children help?
 - b. Follow this by a discussion of a picture such as "Indian Harvest," Couse. Let the children plan a dramatization of this with appropriate Indian music sung offstage while the scene is pantomined

- c. Post pictures of fireplaces, spinning wheels, turkeys, etc.
- d. Tell pilgrim stories and let the children plan a dramatization for Thanksgiving, discussing Thanksgiving freely
- e. Ask the children to dictate sentences about such topics as the Indians, the Pilgrims' clothes, the first Thanksgiving
- f. Compose a Thanksgiving poem. Find pictures to make a Thanksgiving booklet
- g. Read to the children such stories as "The Elves and the Shoemaker"—Grimm's Fairy Tales, "Why the Evergreen Trees Keep Their Leaves in Winter," Bryant—How to Tell Stories to Children. Houghton Mifflin
Read poems such as: "Thanksgiving Day," Child; "Indian Children," Wynn; "The North Wind Doth Blow," Mother Goose; "The Carrot and the Rabbit," Jackson, Childcraft Book I. "The Moon's the North Wind's Cooky," Lindsay, The Poetry Book I, Rand McNally
- h. On the back of an unused roll of wallpaper or on a strip of wrapping paper, make a movie of winter activities by drawing and pasting cutouts
- i. Discuss such a picture as "Feeding Her Birds." What do birds eat in winter?
- j. Discuss why Christmas trees stay green in winter
- k. Develop coasting and skating rules. Let the children plan illustrated safety jingles.
- l. Paste a safety poster on the movie roll
- m. Call for reports on store and home decorations
- n. Put Santa Claus on the movie roll as well as pictures of gifts, trees, reindeer, etc.
- o. Play guessing games in which one child gives characteristics of a Christmas toy and other children guess what it is
- p. Let the children design tags and simple enclosure cards for their gifts
- q. Read to the children Bible stories which they may reproduce after they have outlined the sequence of events
- r. Study Christmas stories and poems, also pictures such as "Madonna of the Chair," or "The Holy Night"
- s. Have children memorize Bible stories or a poem for a Christmas program
- t. Let the children dramatize "The Night Before Christmas" as it is read
- u. Teach the Christmas spirit and let the children describe kind acts they might do
- v. Finish the moving picture with Bible scenes and a large star

3. Mid-winter

- a. Spend one or two periods after Christmas telling about Christmas vacation, celebrations, or gifts
- b. Let one child be the giver, and the other the receiver of a gift, and dramatize the correct conversation, personally, or over the telephone
- c. Read for enjoyment such stories as "Little Black Sambo," Bannerman, David McKay Company, Philadelphia
- d. Let the children bring in stories they have received for Christmas. Read, discuss, reproduce, and dramatize them.
- e. With clothespin dolls, put on a puppet show
- f. Play drill games with phonograms, the pupils enunciating a phonogram, and then quickly building as many words as possible from it
- g. Make pictured chart of all the animals used in producing winter clothes worn by children. Let the children use the chart for reading and language lessons. Limit oral composition to three sentences.
- h. Try to discover if days are getting longer by watching a shadow at a certain hour the first day and the last day of January
- i. Let the children make up words and motions to accompany "The Mulberry Bush," or any other little tune played or hummed by the teacher
- j. Learn the winter habits of Montana birds and animals
- k. Compose a jingle commencing with "I'm glad I live in Montana"
- l. Suggested poems: "Snowflakes," Dodge, The Poetry Book, I, (Rand McNally); "The Land of Counterpane," and "The Swing," Stevenson (Childcraft, I)
- m. Study "The Return to the Fold," Mauve, or "The Shepherdess," Lerolle
- n. Write a series of sentences on the board, and let the children decide whether the facts are important and in sequence. Example: I got up. I ate my breakfast. I went to school.
- o. Tell the children the superstition about the groundhog and his shadow. Show them a picture of a groundhog, and let them decide whether they have ever seen a groundhog.
- p. Appoint a weather committee for Groundhog Day. The members must decide if shadows can be seen.
- q. Read stories about Lincoln's childhood and have children compare it with their own

- r. Let the children make simple Lincoln booklets
- s. Have the children make drawings of a log cabin, chairs, stools, fireplace, etc.
- t. Discuss simple stories of Washington's home and life, and make a comparison with Lincoln's, emphasizing that each was great because he loved his country
- u. Let the children give the Flag Salute, sing "America," or work out a patriotic program
- v. Stories to be read to the children may be: "The Sandman," Anderson's Fairy Tales (any edition), "Cinderella," Grimm's Fairy Tales (any edition)
- w. In poems, call attention to words which sound alike, to actions which can be dramatized, and to other enjoyable features

4. Spring

- a. Play games using "see," "saw," and "seen" correctly. To motivate this, start a "Signs of Spring" chart and let the children report what they "saw" or "have seen," or play games using the words.
- b. Make plans for cleaning the schoolroom, yard, or home yards
- c. Let the children bring pictures of beautiful homes for study, and discuss why they are beautiful. In this connection, study such poems as "Window Boxes" Farjeon; "Rain in the Night," Burr; Childcraft I
- d. Read or tell: "The Golden Cobwebs," Bryant, S. C., "How to Tell Stories to Children," Houghton Mifflin
- e. The picture "Shoeing the Bay Mare," Landseer, will suggest many ideas to the children. Let them have time to think about it, and create a story it suggests to them. Will the mare be used in spring plowing?
- f. Practice introducing playmates to mother; to a new pupil; to the teacher
- g. Dictate simple sentences for the children to write, using known vocabulary
- h. Discuss the sun and its relation to seasons
- i. Discuss rains and showers and the good they do
- j. Talk about winds and weather. From which direction do most Montana winds come?
- k. Talk about buds and leaves, and find the first ones. See who brings to school the first Pasque flower or pussy willow.

- l. Talk about the origin of April Fool's Day. Let the children tell about the jokes they played on father and mother, and the jokes played on them.
- m. Find funny pictures, cartoons, and jokes, and go over them with the class
- n. Have the children ask riddles of one another, and make riddles in class
- o. Continue the "Signs of Spring" report and chart. Learn to recognize common trees, grass, weeds, etc.
- p. Design cards with groups of balloons in spring colors. Learn the poem, "Blowing Bubbles," Johnson—The Poetry Book II, Rand McNally Company, Childcraft Book II
- q. Memorize "Who Likes the Rain," Bates, The Poetry Book II, Rand McNally Company, Childcraft
- r. Give "Who Likes the Rain" as a choral reading, dividing the class into groups and assigning different parts
- s. Read "The Three Billy Goats Gruff" to the class and let them dramatize any part they choose. It might be a special program to which they would invite other classes or people with written invitations.
- t. Let any one who cares to, read and illustrate a new story to the class
- u. Make a record sheet for each pupil, leaving blank spaces for the child's name, age, grade, father's name, father's occupation, and see how many of them can be filled in without help

Note: In graded town schools, there is merit in introducing only a few holidays in the first grade, and saving some for later grades. In a one-room school, the teacher will probably wish to introduce lower grade children to all the holidays the others are celebrating.

V. Attainments*

- A. Outcomes in oral language resulting from activities which involve: Conversation, story telling, courtesy, use of telephone, poem study, dramatization, club activities, criticism, riddles, interviews, trips, excursions, and class projects
1. To give simple, interesting accounts
 2. To desire to talk, and to listen to others
 3. To express ideas clearly through choice of words
 4. To speak in simple, complete sentences

*Adapted from a chart accompanying the English Experience Series—Neville-Kelly-Thorp—Rand McNally & Company.

5. To develop accurate observation which will result in interesting reports
 6. To use experience words gained through reading, listening, observation, and participation
 7. To read from memory about six short poems
 8. To dramatize stories read or heard
 9. To retell stories heard
 10. To offer constructive criticism
 11. To have correct pronunciation
 12. To eliminate "and," "and so"
 13. To develop attitude of accepting criticism graciously
 14. To speak with pleasing voice, slowly and distinctly
 15. To answer questions courteously
 16. To listen politely and to avoid interruptions
- B. Outcomes in written language resulting from activities which involve: Letter writing, records, taking notes, dictionary, bibliography, biography, creative writing, newspaper
1. To compose and dictate to the teacher a short story
 2. To decide on an interesting opening sentence
 3. To know name, date, age, grade, address, father's home, and name of school
 4. To be able to copy simple material from the board
- C. Outcomes in formal usage resulting from activities which involve: Sentence sense, capitalization, punctuation, word usage, and parts of speech
1. To begin developing a sentence sense
 2. To begin developing the habit of simple sequence
 3. To present a few uses of capitals and simple punctuation
 4. To sound syllables distinctly

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Tucker, Louise E., Literature for Reading and Memorization, Book I, Iroquois Publishing Company, 1929

GRADES TWO AND THREE

I. Introductory Statement

This is a period of developing confidence in the use of oral language. There will also be a growing use of written language. Informality should still prevail, as confidence and interest can best be stimulated in this way. It is also through informality that the teacher can convince the pupil that "Language is fun!"

II. General Objectives of this Period

- A. To improve conversation by encouraging the awareness of the importance of having something to say. Conversation definitely now includes three "hows": How to talk, how to listen, and how to correct and criticize.
- B. To further develop the ability to talk in sentences
- C. To encourage children to share with others through speech or writing their own experiences which they think are interesting. Their accounts should be simple but interesting and reliable.
- D. To further develop the sense of sequence
- E. To develop the ability to copy simple sentences from the board and to write them from dictation
- F. To continue vocabulary development
- G. To develop the ability to write simple original compositions of about three sentences
- H. To fix certain uses of capitalization and punctuation

III. Texts

There are no adopted texts for these grades. Primary readers by now, however, are giving the children many conversation subjects, and a great deal of miscellaneous reading material should always be available. The teacher must also have a wealth of story-telling material available and must acquaint herself with local situations about which the children will wish to talk. Some books which might prove useful are: the second readers from any graded series of readers, animal and nature stories of all kinds, and books of games and puzzles on the primary level.

IV. Activities and Content

A. Conversation

After a long vacation spent under "not-so-good-English-conditions," the child will have many weak spots in the English he uses in his conversations. Remembering still that what he says is more important than how he says it, these errors must be patiently corrected. The work in these grades is a continuation without break of the first grade program. The

child now has more words at his command and should have an idea of sequence that improves his thinking and talking. He can continue to improve the quality of his voice as well as the courtesies of his conversation. Much conversation will still be incidental and will come at free moments during the day. There should be definite conversation periods, however, when the child is prepared with something to say about a subject which is known in advance. The other school subjects, particularly the study of living in the community, will supply many topics of conversation. Some topics that could be discussed under this more formal type of conversation might be:

1. What Montana farmers do in the winter time when they are not in the fields
2. Excursions to various community agencies and what we expect to discover
3. Different kinds of local transportation
4. Pictures and clippings for the bulletin board and booklets
5. Why don't all the birds stay in Montana in the winter?
6. Who has the best garden in the district?
7. Why do we have highway patrolmen?
8. How do we send things through the mail?
9. Things we see when we go to the county seat
10. Special days and holidays; special events in the community
11. Games we play in winter and in summer

Planning is still the greatest single stimulant of conversation. The schoolroom, particularly if the teacher is recognizing the merits of socializing the procedure, requires many periods of group planning where conversation is so necessary that it is self-motivating. Pupils will help plan the sand table, room decorations, excursions, group letters to a sick member, programs, noon lunches, parties, the school garden, playground activities, invitations to parents or other schools, and a host of other things.

B. Reproduction

The ability to read and to write has now broadened the scope of things which the children may tell about in more formal reproductions. They find stories in the library that must be told to the class. The science corner holds many potential discoveries. A child may now tell about a booklet he is making, or he may give a report of a book he has read. He may decide to give just part of the story of the book to stimulate the desire of others to read it to find out "what else?" There are many more narratives to be given now since he can read stories of his own, but descriptions of the

deer shot by Uncle Ed, the curtains made by mother, and other home and community happenings still hold first place. Remember that few stories bear repetition without losing their originality and spontaneity. Besides, there is too much to tell to take time telling one thing over and over again.

C. Dramatization

Having had a year or two of experience in dramatizing, the child now should recognize the dramatic possibilities of any situation. There must always be an audience and there should usually be collaboration and preparation among those who are going to act the parts. Some things the teacher should watch for and encourage are:

1. Spontaneity, not perfection, in performance
2. Interest of all the children, not just a certain few "stars"
3. Choice of stories or situations that have real dramatic possibilities
4. Situations which require little dressing up, and few properties
5. Situations which have possibilities for a good introduction which sets the atmosphere, for a climax or high point of interest, and for a satisfying close

Some situations which furnish natural occasions for dramatization are:

1. Finishing reading a story that has dramatic possibilities
2. A "News Reel" of something that has happened at home or at school
3. The completion of a science or a health project
4. Acting out original riddles or charades
5. Scenes growing out of special days, such as the First Thanksgiving
6. A scene depicting Fire Prevention Week, Be Kind to Animals Week, Book Week, etc.
7. A scene from a story of early Montana history
8. Something we saw at the county fair
9. Reproducing a local event as described by an old-time resident:
 - a. The building of the schoolhouse
 - b. The first school election
 - c. The early quarrels between the cattlemen and the sheepmen
 - d. The old chuck wagon
 - e. When the homesteaders first came
 - f. The winter of 1919
 - g. The worst flood we ever had in the county

10. Reproducing, dramatically, things happening today:

- a. A local boy leaves for the army
- b. Hauling wheat to the elevator
- c. The visit of the county nurse
- d. Collecting rubber and iron
- e. Selling war stamps
- f. Getting our sugar ration

D. Correction of errors

The teacher should plan usages in her own speech which will set models for correction of errors which are common in the class. Correction techniques are frequently highly individualized as a certain child will make the same error over and over again. Another child will likewise have his "pet" error, while a third child may speak with considerable correctness. Many textbooks in elementary language have well-planned exercises to correct common errors. The teacher could well add these to the techniques which she herself has developed.

E. Written language

Written composition grows naturally out of oral composition, as the child begins to develop sufficient handwriting skill. There are numerous situations within the school program which will stimulate the child to wish to write. The list given here is suggestive and not inclusive.

1. Copying

The sentences to be copied should be short and interesting. Better yet, they may be the children's own sentences which have been put on the board by the teacher as they developed during a discussion and they are now being copied to give them permanence. There should be a motive for the copying: The children are making a book, perhaps, about George's lamb; something John said was so funny they want to write it down; a list of the children's names, or a list of things to be brought from home if necessary.

2. Dictation

As copying from dictation involves spelling, the words must have occurred in material which has already been seen by the child either on the board or in print. The sentence concept is aided by dictation if the sentences are short enough to be read as a whole. Capitalization and periods naturally follow this sentence dictation. Pupils should be encouraged from the second grade through to the eighth to compare their writing with earlier work and with writing norms, such as are made by the teacher or found in standard writing scales. (Page 156).

3. Keeping records

Keeping records is a type of written language for which the child can readily see the use. If records are available from previous years, they should be shown to the class. The teacher should indicate that considerable care is due these documents as they are permanent records to be carried forward from year to year. The children may keep individual records, and, of course, the school may keep composite records. In a rural school the older children will probably take over the responsibility of keeping the composite records but second and third grade children may be given definite things to do in gathering the information for the school records, and may also keep group records in their own grades.

Some suggestions of kinds of records that might interest children:

a. Individual records

- (1) Height and weight
- (2) A word list
- (3) Home record of the baby's "firsts"
- (4) Scores made on tests
- (5) Miles walked to school and elsewhere each day
- (6) Diary
- (7) Milk and egg records at home
- (8) Farm records, such as planting and harvesting dates, yields, and financial records

b. Composite records

- (1) Weather
 - (a) Temperature at nine, noon, and four each day. The thermometer should be on a bracket and visible from indoors
 - (b) Record the days that are sunny, windy, rainy, snowy
 - (c) Record snow depth; nail a yardstick to a fence post and read snow depth daily; watch the snowbanks melt and record day snow disappears
 - (d) The year's firsts: First killing frost, first snowfall, first blizzard, first icicles, first chinook, first robin, first spring rain and first wild flower
- (2) Room profiles from standard tests
- (3) Record of war stamps sold or pounds of paper, iron, or junk collected
- (4) Composite diary
- (5) Indoor temperature chart

- (6) Minutes and records of club activities
- (7) Records describing school programs or other activities
- (8) Daily attendance record
- (9) Hot lunch menu record
- (10) Record of visitors

4. The primary news

Sentences made by the class in recounting any activity can easily become the class newspaper. If the sentences are printed on the board by the teacher as they develop, a line drawn about them and the top of the front page of the county newspaper pasted above them will, definitely, in the child's mind, make of them a newspaper. Later they may be printed on tagboard or newsprint, with the use of crayons or even printing blocks and ink stamp pads. The news stories may be typed by the teacher or they may be copied by the class. In either case, each child may retain the story and make his own book of school news events. Certain stories may be saved and used in the county superintendent's mimeographed monthly book or even printed in the county newspaper.

5. Original compositions

a. Stories

When a child writes down his first sentence, telling something from his own experience or observation, creative writing has begun. At first, his stories consist of only one or two sentences, but they are definitely stories and should be recognized as such. The child should be stimulated to write by being asked to read his story to the class, or to write it on the board where others may read it, or to put his own paper on the bulletin board. He should read and reread his own stories and from time to time and with the help of the class, choose the best ones to keep for the newspaper, or for a book which is made up for the room library. In every grade from here on the teacher should dwell on the importance of the opening sentence as giving the key or topic of the story. The story must definitely be made of sentences which are capitalized and punctuated. There must be just as many sentences as are needed to tell the story. This will originally be one, but the number will gradually increase until the child is ready to begin organizing his sentences into paragraphs. In the child's first written stories the sentences will have been formed orally before they are written. The story may be of an actual happening or may be purely imaginative. Children who think and write too much the "here and now" should be encouraged now and then to go on a flight of fancy.

b. Letter writing

In this case, also, the writing is preceded by oral discussion of what is to be said in the letter. A standard form for a friendly letter should be kept before the children until they become familiar with it. Children should realize that things which are interesting to tell orally to people who are close at hand are also the things which are interesting to write to people who are at a distance. There are so many instances in school which call for the writing of real letters to real people that it rarely should be necessary to write an imaginary letter to someone who does not exist. Letters may be written:

- (1) To a classmate who is ill at home
- (2) To a boy or girl who goes to another school, telling of school activities
- (3) To the school board, to the P. T. A., to the county superintendent or to some parent, as a letter of thanks for something that has been done for the school
- (4) To parents or children in other schools or rooms inviting them to visit the school
- (5) To a relative or friend who has recently been visited
- (6) To Mr. Jones telling him the horse he has lost is in the schoolyard
- (7) To children who have transferred to other schools

While most of these letters can be delivered locally, each child should write and receive some letters which are sent by mail. At first it may be necessary for the teacher to assist in addressing the envelope.

G. Memorization

A perfunctory assigning of a poem to be committed in these grades, or in any other, is probably a sure way to have the child dislike the poem. This does not mean that the teacher can never choose verses which she thinks the class or some members of it should commit, but it does mean that there are many ways of building a liking for a poem. It would seem unnecessary to say that the poem should fit in with the season, the day, the subject under study, and even the mood of the group. Perhaps just writing it high on the board where it may be left for a few days will stimulate many children to commit it. If the teacher knows it and recites it at an appropriate time or reads it well, aloud, it will strike some listeners as desirable property. One child may have committed the poem beforehand and may recite it as a surprise. The poem might be chosen for copying into a notebook or into

a book that is being assembled for the school library. Many poems may be found that hold interest for all the children in a rural school, and a poem that is chosen by one grade or group for committing may be learned unintentionally by others. The poem committed should be one which will give pleasure now and in later life. It is suggested that the teacher read the suggestions for memorizing poetry given by McKee in his "Reading and Literature in the Elementary Grades," pages 548-551.(1)

The teachers' personal library and the school library should include many books of poems and individual poems that are apt to have an appeal for children. A few books are suggested here:

- Aldis, Dorothy. *Before Things Happen*. G. P. Putnam's Sons, New York City, 1939. *Everything and Anything*. Minton Balch & Company, New York City, 1927
- Association for Childhood Education. *Under the Silver Umbrella*. Washington, D. C.
- Barrows, Marjorie. *Two Hundred Best Poems for Boys and Girls*. Whitman Publishing Co., Racine, Wisconsin, 1938
- Brewton, John. *Under the Tent of the Sky*. MacMillan, San Francisco, 1937
- de la Mare, Walter. *Peacock Pie: Come Hither*. Henry Holt, New York City, 1924. Alfred A. Knopf, New York, 1925
- Field, Eugene. *Sugar Plum Tree and Other Verses*. Saalfeld Publishing Company, Akron, Ohio, 1938
- Field, Rachel. *Taxis and Toadstools*. Doubleday Doran, New York City, 1926
- Flynn, H. E. *Voices of Verse*. Books I and II. Lyons & Carnahan, Chicago, 1934
- Fyleman, Rose. *Here We Come A'piping*. Frederick Stokes, New York City, 1938
- Hubbard, Alice and Babbitt, Adeline. *The Golden Flute*. John Day Company New York City, 1932
- Milne, A. A. *Now We Are Six; When We Were Young*. E. P. Dutton, New York City, 1935
- Stevenson, R. L. *A Child's Garden of Verses*. Grosset & Dunlap, New York City, 1938
- Stevenson, Burton E. *Home Book of Verse for Young Folks*. Henry Holt & Company, New York City, 1929
- Teasdale, Sara. *Stars Tonight*. MacMillan, San Francisco, 1930
- Thompson, Blanche. *More Silver Pennies*. MacMillan, San Francisco, 1939
- Untermeier, Louis. *Rainbow in the Sky*. Harcourt Brace & Company, New York City, 1935
- Wiggin, Kate Douglas, and Smith, Nora Archibald. *Posy Ring*. Doubleday Doran, New York City, 1935

(1) McKee, P. *Reading and Literature in the Elementary School*. Houghton, Mifflin Company, 1934.

V. Attainments* For Grade Two

A. Attainments in oral language resulting from activities which involve: conversation, story telling, courtesy, telephone, poem study, dramatization, club activities, criticism, riddles, interviews, trips, excursions, and class projects:

1. To talk freely about an interesting experience
2. To follow the subject in conversation
3. To further develop ability to talk in complete sentences
4. To tell a story from selected material such as a picture
5. To retell reading material
6. To plan a story
7. To dramatize a story read
8. To use pleasing voice and good diction
9. To make introductions
10. To avoid ridicule
11. To present opinions in courteous manner
12. To use the telephone
13. To know the sequence of the alphabet
14. To know the days of the week

B. Attainments in written language resulting from activities which involve: letter writing, records, note taking, dictionary, bibliography, biography, creative writing, newspaper:

1. To copy material from the board
2. To write a simple original story
3. To write simple sentences from dictation
4. To keep simple records
5. To fill in cards asking for personal information
6. To copy a simple letter observing margins, salutation, and signature

C. Attainments in formal usage resulting from activities which involve: sentence sense, capitalization, punctuation, word usage, and parts of speech:

1. To capitalize beginning of sentence and names of persons
2. To know punctuation for end of sentence
3. To be able to use "saw," "seen;" "did," "done;" "have not," "has not;" "himself," "herself," "themselves;" "run," "ran;" "a," "an"

*Adapted from a chart accompanying the English Experience Series—Neville-Kelly-Thorp—Rand McNally & Company

VI. Attainments* For Grade Three

A. Attainments in oral language resulting from activities which involve: Conversation, story telling, courtesy, use of telephone, poem study, dramatization, club activities, criticism, riddles, interviews, trips, excursions, and class projects:

1. To talk intelligently about the story
2. To distinguish sentences from groups of words
3. To plan a short talk
4. To tell stories for special days and seasons
5. To show more originality in story telling
6. To give simple directions
7. To develop a story with good opening sentences
8. To make a riddle
9. To participate in choral reading
10. To give announcements
11. To wait turn in speaking
12. To make a request politely
13. To improve telephone etiquette
14. To introduce one person to another or to the class
15. To keep a narrative in sequence
16. To read a poem aloud without "singing" it
17. To name the months of the year and important holidays

B. Attainments in written language resulting from activities which involve: Letter writing, records, taking notes, dictionary, bibliography, biography, creative writing, newspaper:

1. To write simple letters
2. To know forms of salutation
3. To write simple announcements
4. To write one-paragraph stories
5. To fill in blank forms
6. To build sentences
7. To copy board work
8. To make and post well-written notices attractively
9. To write words in alphabetical order
10. To write down the plan or order of a program or an excursion
11. To know the vowels and consonants
12. To abbreviate the days of the week

*Adapted from a chart accompanying the English Experience Series—Neville Kelly-Thorp—Rand McNally & Company

13. To write a simple friendly letter
14. To spell words suitable to this grade
- C. Attainments in formal usage resulting from activities which involve: Sentence sense, capitalization, punctuation, word usage, and parts of speech:
 1. To recognize and use sentences
 2. To use periods for abbreviations and initials
 3. To use a comma between day and year, city and state, in letter writing
 4. To use capitalization and punctuation for titles and initials
 5. To use words: I, me; is, are; was, were; this, that, these, those; comes, come, came; see, saw, seen; do, did, done; go, went, gone; set, sit, sat; run, ran; let, leave; words that say "no;" may, can; has, have, had
 6. To understand what paragraphs are and to be able to recognize them

VII. Bibliography

- A. McKee, Paul. Language in the Elementary School. Houghton Mifflin Company, 1939

GRADES FOUR AND FIVE

I. Introductory Statement

The teacher must be thoroughly familiar with the work of the preceding grades. Continuity of experience is necessary if the child is to deal with situations in an increasingly complex program. The child's experience is broadening, his powers of observation are growing, and the vocabulary with which he expresses himself is becoming more effective. In grades four and five, the child begins to find many vicarious experiences in his reading from history and geography books, and there is apt to be a temptation to allow these new interests to supplant the more immediate and personal experiences which have heretofore been the sole stimuli to his language needs. It must be the constant effort of the teacher to help him interpret and understand remote times and distant places in the light of his own Montana home and the nineteen forties.

The pupil now has stimulating suggestions in his reading from language books, in his explorations through the pages of his history and geography, and in the discoveries he makes in books at home and in school. In addition, he has a wealth of suggested activities in the ten units which are listed for these grades in the worksheets of the Montana curriculum. For these reasons the activities and procedures suggested in this outline are not so comprehensive for these grades as they were for the first, second, and third grades.

II. Objectives

- A. To strengthen the "sentence sense" and to eliminate weak connectives
- B. To increase the child's power of self-expression, oral and written
- C. To improve the child's ability to use the dictionary and reference books
- D. To develop in the child, through insistent and consistent drill, habits of correct usage, clear enunciation, proper pronunciation, pleasing voice quality, and poise before his group
- E. To cultivate a love for good literature
- F. To stimulate creative imagination
- G. To establish the habit of self-criticism on the basis of standards
- H. To develop a continually increasing vocabulary

III. Texts

English Experience Series, by Neville-Kelly-Thorp, Rand McNally Company

- A. Adventures in English, Fourth Grade
- B. English in Practice, Fifth Grade

IV. Activities and Procedure

A. Oral composition

1. Conversation

a. Topics of interest to pupils, such as:

- (1) Current events
- (2) School topics
- (3) Sports
- (4) Proper and courteous use of telephone
- (5) Courteous behavior in public places, theatre, bus, etc.
- (6) Stories and books
- (7) Journeys—imaginary and actual
- (8) Movies attended
- (9) Descriptions—"Who am I?" riddles, using persons, fruits, places, flowers, animals, birds, objects, and characters in stories

b. Reporting

- (1) Experiences
- (2) Results of investigations
- (3) Plans of a group

c. Announcements

d. Interviews

e. Introductions

f. Directions

2. Reproduction

a. To make a well-organized talk, one paragraph in length

b. Original story contest

- (1) Each member tells an original story
- (2) Group chooses best story
- (3) Winner tells his story to class, to pupils in another grade, or at some program
 - (a) Use good beginning
 - (b) Keep to the point
 - (c) Have a good closing

c. Make original endings for unfinished stories

d. Picture stories

- (1) As a picture is shown, a child volunteers a story which should be a real story, not merely a description of the picture
- (2) Pictures classified according to holidays, seasonal sports, pets, birds, home activities, etc.

3. Dramatization (keep work free and natural)
 - a. Stories read or heard
 - b. Real experiences of self and other people
 - c. Original stories made into:
 - (1) Plays
 - (2) Puppet shows
 - (3) Pantomines
 - (4) Shadow shows
 - (5) Pageants
4. Courtesy—stress courtesy in all situations
5. Criticism
 - a. Of one's own work and of the work of others—begin criticism by first mentioning something good
 - b. Correct attitude toward criticism
6. Poem study
 - a. Certain poems will be found by the teacher to adapt themselves particularly well to choral reading and, whenever possible choral reading should be used in both the fourth and fifth grades. If it is possible, the teacher should see a demonstration in choral reading by an experienced group.
 - b. Suggestions for teaching a poem
 - (1) Teacher's preparation
 - (a) Master the thought
 - (b) See the pictures
 - (c) Anticipate emotional response
 - (2) The introduction—designed to prepare pupils to understand the poem when it is read
 - (3) Preparing the class
 - (a) Give them a story-introduction before they read the poem or hear it read
 - (b) Make clear the meaning of the poem
 - (c) Explain unusual and difficult words and expressions
 - (4) Reading—teacher reads poem in her most effective manner
 - (5) Reading by pupils—aloud, both at home and in school
 - (6) Memorizing if desirable
 - (a) Teacher helps pupils by suggestions
 - (b) Pupils should be encouraged to memorize, but should not be required to do so
 - (7) Avoid mechanization or analysis to point of boredom

- (8) Illustrating the poem by a picture
- (9) Tell interesting facts about the author
7. Correction of errors
 - a. Teacher must be vigilant in noting language errors common to her group
 - b. Use an inventory list to find out the words with which the pupils have trouble in oral and written expression. Drill the entire class on the most glaring errors, and drill each child in his individual errors. Drill work should be in terms of common misuse, and as a result of a real need which is realized by the child as well as by the teacher.
 - c. Suggested list of word-forms commonly misused, for practice in these grades:
 - (1) saw, seen
 - (2) was, were
 - (3) ate, eaten
 - (4) did, done
 - (5) come, came
 - (6) lie, lay
 - (7) bring, take
 - (8) lend, borrow
 - (9) sing, sang, sung
 - (10) ring, rang, rung
 - (11) expect, accept, except
 - (12) guess, think, suppose
 - (13) teach, learn
 - (14) don't, doesn't
 - (15) throw, threw
 - (16) draw, drew, drawn
 - (17) those, them
 - (18) you were (not you was)
 - (19) there are—for plurals (not there is)
 - (20) double negatives
 - (21) have got, hadn't ought
 - (22) ain't or hain't
 - (23) Where is he at?
8. Vocabulary enrichment
 - a. Spelling rules
 - (1) Plurals in (s) or (es)
 - (2) Dropping silent (e) when adding suffixes beginning with a vowel
 - (3) Dropping the final consonant when adding suffixes beginning with a vowel

- b. Variety in words
- c. Synonyms, homonyms, antonyms
 - (1) Use of index and table of contents
 - (2) Alphabetical arrangement
 - (3) Speed contests in finding certain words in dictionaries (guide words)
- B. Written composition
 - 1. Letter writing
 - a. Friendly letters
 - (1) Notes of invitation and acceptance of invitations
 - (2) Notes acknowledging gifts
 - b. Simple business letters
 - c. Address on envelope
 - d. Salutation
 - e. Punctuation of letters
 - 2. Practice in copying from correct forms
 - 3. Dictation
 - a. Short paragraphs
 - b. Titles of stories
 - c. Dates
 - d. Addresses
 - e. Quotations
 - f. Verse
 - g. References to books or magazines
 - h. Assignments
 - 4. Original composition, first given orally and then written
 - a. Original poems
 - b. Outline
 - (1) Short stories and fables
 - (2) Jokes
 - c. Writing plays
 - d. Organizing a club—writing minutes—addressing the chair
 - 5. Seat work activities
 - a. Booklets
 - b. Original poems
 - c. Crossword puzzles
 - d. School news for the county paper
 - e. Diary
 - f. Descriptive list of "movies" seen
 - g. List of books read

- h. Anagrams and acrostics
- i. Junior Red Cross correspondence
- j. Record books

C. Functional grammar and mechanics

1. Fourth grade

a. Capitalization

- (1) Beginning of sentence
- (2) The words "I" and "O"
- (3) Proper nouns
- (4) First word of a line of poetry
- (5) Important words in titles

b. Punctuation

- (1) All sentence endings
- (2) Period in abbreviations
- (3) Comma
 - (a) In quotations
 - (b) After "yes" or "no"
 - (c) In a series
 - (d) With the name of the person addressed
 - (e) In letter forms as needed
- (4) Quotation marks (simple)
- (5) Apostrophe
 - (a) In simple contractions
 - (b) Simple possessive
- (6) Abbreviations
 - (a) Names
 - (b) Days
 - (c) States
 - (d) Gov., Capt., Rev., Co.

- (7) Hyphen as used in dividing word at end of line

2. Fifth grade

- a. Agreement of verb with subject
- b. Use of verb to show time
- c. Use of pronouns
 - (1) After linking verbs
 - (2) After the comparative
 - (3) After prepositions
- d. Elimination of useless introductory words

3. Fourth and Fifth Grades, frequent drills in pronunciation and enunciation

V. Attainments* For Grade Four

- A. Attainments in oral language resulting from activities which involve: Conversation, story telling, courtesy, use of telephone, poem study, dramatization, club activities, criticism, riddles, interviews, trips, excursions, and class projects:
 1. To increase power of expression
 2. To use clear enunciation and pronunciation
 3. To tell an original story
 4. To use creative imagination
 5. To finish a story
 6. To increase telephone usage
 7. To summarize and take notes
 8. To follow sequence of events when telling a story—by outline or notes
 9. To take active part in club work
 10. To make corrections courteously
 11. To develop continually increasing vocabulary
 12. To give a book report
- B. Attainments in written language resulting from activities which involve: Letter writing, records, note taking, dictionary, bibliography, biography, creative writing, and newspaper:
 1. To make a list of directions for using the dictionary and reference material
 2. To write short original stories (at least two paragraphs) and poems
 3. To write sequence of ideas in a paragraph
 4. To give titles and enlarge on group stories
 5. To outline a story
 6. To write simple directions
 7. To write a simple business letter
 8. To take notes on reading material
 9. To write connected two-paragraph stories
 10. To spell the words suitable to this grade
 11. To show a normal year's progress on any standard handwriting scale (A speed of 50 letters per minute and quality of 50 on Ayres' Scale and 16 on Freeman's Scale)
- C. Attainments in formal usage resulting from activities which involve: Sentence sense, capitalization, punctuation, word usage, and parts of speech:

*Adapted from a chart accompanying the English Experience Series—Neville-Kelly-Thorp—Rand McNally & Company

1. To use words: teach, learn; himself, herself, themselves; eats, eat, ate, eaten; given, give, gave, given; there is, there are, there were; takes, take, took, taken; brings, bring, brought; good, well; any, no, none
2. To use name words
3. To use words in place of name words
4. To use limiting words
5. To use "more" and "most"
6. To use picture words and action words
7. To use words with the opposite meaning
8. To use words with nearly the same meaning
9. To use capital letters in poetry
10. To use periods, question marks, commas, and apostrophes showing ownership
11. To compare adjectives and adverbs
12. To make use of dictionary, index, table of contents

VI. Attainments* For Grade Five

- A. Attainments in oral language resulting from activities which involve: Conversation, story telling, courtesy, use of telephone, poem study, dramatization, club activities, criticism, riddles, interviews, trips, excursions, and class projects:
 1. To stand before an audience and talk connectedly with help of an outline
 2. To interview a person
 3. To show marked vocabulary increase
 4. To increase the use of the telephone
 5. To participate in club procedure
 6. To give an oral summary or synopsis
 7. To make an announcement or give instructions
 8. To give more attention to the presentation of work
 9. To enjoy careful word usage in others
- B. Attainments in written language resulting from activities which involve: Letter writing, records, note taking, dictionary, bibliography, biography, creative writing, and newspaper:
 1. To master conventional rules of a social letter
 2. To increase use of business letter
 3. To write a summary of an article
 4. To write a story with good beginning and ending sentences, margins, and title

*Adapted from a chart accompanying the English Experience Series--Neville-Kelly-Thorp--Rand McNally & Company

5. To write a news story
 6. To address an envelope
 7. To write concise minutes for a school club
 8. To abbreviate the names of the months
 9. To use ink for all writing
 10. To use the exclamation point
 11. To write original verse and plays
 12. To give short book reports
 13. To write simple announcements
 14. To fill in various kinds of blanks
 15. To outline and write an original story
 16. To outline a book
 17. To spell the words suitable to this grade
 18. To show a normal year's progress on any standard hand-writing scale (a speed of 60 letters per minute and a quality of 55 on Ayres' Scale and a quality of 18 on Freeman's Scale)
- C. Attainments in formal usage resulting from activities which involve: Sentence sense, capitalization, punctuation, word usage, and parts of speech:
1. To begin sentences with modifiers
 2. To use the hyphen at the end of the line between syllables when a word is divided
 3. To use the exclamation point correctly
 4. To use apostrophe in possessive plurals
 5. To use commas in series, with names of persons addressed and with "yes" and "no"
 6. To capitalize important words
 7. To use correct forms of: I, he, she, we, they, with one another and with nouns; are, were, have, do, with words and groups of words that mean more than one; two, too, to; have, after such words as could, should, would, might, ought to, may; forms of write, grow, know, throw; him, her, me, them, us, after action verbs and after such words as to, for, with, from, and between; we, and us with other words; speak; break; freeze; choose; steal; drink; sing; and ring
 8. To use encyclopedias
 9. To use "how, when, and where" words
 10. To use "ing" forms of verbs
 11. To find key sentences
 12. To know nouns and verbs as two most important words in the sentence

VII. Bibliography For Grades Four and Five

- A. Language in the Elementary School, McKee. Houghton, Mifflin Co., San Francisco
- B. Education by Story Telling, K. Cather. World Book Co., Yonkers-on-the-Hudson, N. Y.
- C. Best Stories to Tell to Children, Bryant. Houghton, Mifflin Co., San Francisco
- D. Children's Classics in Dramatic Form, Book II (Fourth and Fifth), A. Stevenson. Houghton, Mifflin Co., San Francisco
- E. An Argosy of Fables, F. F. Cooper. Frederick A. Stokes Company, Philadelphia
- F. Festivals and Plays (One of the best sources on playmaking), Chubb and others. Harper and Brothers, New York
- G. A Primer of Hand Puppets, Paul McPharlin, 1935, \$.35. 155 Wambleton Street, Birmingham, Michigan
- H. Modern Practices in the Elementary Schools, Hockett and Jacobson. Ginn and Company, San Francisco
- I. The Child and His Curriculum, Lee. Appleton-Century Company, New York

GRADE SIX

I. Introductory Statement

There must be no sudden transition in the sixth grade from the simple mechanics of usage to a highly technical study of grammar. It is true that the work in language now involves more writing, which is in itself technical, but all of language continues to be functional expression. It still is more important to say something than to say it in a certain way. Through several grades the child has been developing an understanding of the sentence as the unit of expression, and in this grade the sentence continues to be all-important. Parts of speech are studied only because they are words which contribute certain values to the sentences. Sentences themselves are taken apart to see how they are made. In this grade the child develops power in both oral and written expression.

II. General Objectives

- A. To correct and improve oral expression
- B. To use a tone of voice that is pleasing and effective
- C. To meet the arguments of others orally and in writing
- D. To formulate and analyze effective sentences
- E. To use correctly the simpler marks of punctuation: comma, period, apostrophe, question mark and quotation marks
- F. To group sentences into paragraphs
- G. To write a correct letter and a complete theme
- H. To recognize the parts of speech with a fair degree of ability

III. Activities and Procedure

- A. Oral composition
 - 1. Conversation—the child should be able:
 - a. To carry on business conversations concisely
 - b. To acquire a sense of the appropriateness of certain topics to certain people and to certain occasions
 - c. To observe that the most interesting people are those who not only are good talkers but are good listeners
 - d. To give the speaking parts of a dramatization realistically
 - e. To discuss conversation topics such as:
 - (1) Newspaper articles
 - (2) Library books
 - (3) Poems
 - (4) Trips to points of interest
 - (5) Hobbies
 - (6) Men—famous or local

- f. To understand certain essential of speech—
 - (1) Thought and language
 - (2) Vocabulary
 - (3) Voice and personality
 - (4) Posture and gesture
2. Reproduction—story telling with special emphasis on sequence of events. The child must be able to:
 - a. Make a long story short
 - b. Analyze a story so as to pick out the main characters, events, and purposes
 - c. Discuss with the teacher what constitutes a good background for a story
 - d. Have a good beginning and a good ending for stories
 - e. Utilize story-telling abilities in room activities, in assemblies, and at home
 - f. Discover story material in other school subjects
 - g. Realize that there is story material everywhere, all the time
3. Use of the telephone with emphasis on common courtesies
 - a. Give necessary information definitely
 - b. Make an emergency call
 - c. Use proper procedure in placing long distance and rural calls
 - d. Be especially courteous in making complaints, assuming that the business house will show equal courtesy
 - e. Do the telephoning that needs to be done in connection with any school activity, such as issuing invitations to parties, securing permission for an excursion, inviting a visitor to class
4. Announcements, explanations and directions—children in this grade must learn:
 - a. To be accurate
 - b. To state facts clearly and concisely
 - c. To pronounce words directly and distinctly
 - d. To speak with a pleasing, forceful voice
 - e. To have good posture and poise
 - f. To repeat important points at close of announcement
5. Talks, speeches, and reports—children in this grade should be able to make a talk of three or more well-organized paragraphs
6. Poem study
 - a. Reading a poem

- (1) Make clear the meaning of the poem
- (2) Explain unusual and difficult words and expressions
- (3) Read in an effective manner
- b. Illustrate poem
- c. Life of author
- d. Favorite poems of pupils
- e. Get meaning from a poem as a general impression rather than by dissecting and analyzing each word
7. Improved discussion techniques
 - a. Contribution by each member
 - b. Subject well chosen
 - c. Open-forum discussion
 - d. Panel discussion
 - e. General discussion
 - f. Round-table discussion
 - g. Club procedures
8. Choric speech
 - a. Group reading
 - b. Unison reading
 - c. Refrain reading
 - d. Two-part or antiphonal reading
 - e. Types of material most effectively used for choric speech
 - (1) Nursery rhymes
 - (2) Greek choruses
 - (3) Ballads
 - (4) Psalms
 - (5) Antiphonal chants
 - (6) Poems written under the heading of "dance poetry," as found in Vachel Lindsey, Carl Sandburg and others
9. Preparing and giving radio readings
 - a. Mock radio shows
 - b. Advertising scripts
 - c. Poetry programs
 - d. Dramatic shows
 - e. Club activities
- B. Written composition
 1. Letter writing
 - a. Friendly
 - (1) Letter of travel—telling about places visited
 - (2) Informal invitation, acceptance, and regret

- b. Business
 - (1) Ordering articles
 - (2) Answering advertisements
 - (3) Returning unsatisfactory goods
 - (4) Asking for information about trips
 - (5) Asking a person to make a speech on a program
- 2. News items, news stories, announcements, and advertisements
 - a. Plan a school paper or a school column in a local paper
 - (1) Study daily or weekly newspapers and current magazines
 - (2) Choose editorial staff
 - (3) Let every pupil be active as a reporter
 - b. Post announcements on bulletin boards—utilize principles learned in art classes in arranging announcements and advertisements
 - c. Suggestions for news articles
 - (1) News notices
 - (2) Programs, picnics, contests
 - (3) Field trips, excursions
 - (4) Committee reports
 - (5) Birthdays of pupils, of famous men and famous women
 - (6) Community activities—meetings, celebrations, happenings
 - d. Preparation of copy for editor-in-chief—observe and include: name of reporter, title, indention, margin, spelling, punctuation, capitalization, accuracy, neatness
 - e. Proofreading
 - f. Writing an editorial
 - (1) Study editorials—note that the writer does not “tell only what happened,” but mainly what he thinks
 - (2) Find a good editorial and read it to the class for discussion
 - (3) Write an editorial, using well-organized sentences, about one of the following topics:
 - (a) New playground equipment
 - (b) Visitors
 - (c) Lost articles
 - (d) School grounds
 - (e) Class contests

- (f) Care of books and equipment
- (g) Thrift and conservation
- (h) Punctuality
- (i) Work and play
- (j) Good sportsmanship
- g. Humorous section
 - (1) Study articles containing conversation
 - (2) Write amusing incidents from your experiences or from experiences of others
 - (3) Retell jokes heard or read at home
 - (4) Illustrate some amusing incident
- h. Original poems
 - (1) Encourage pupils to write poetry
 - (2) Publish the best from time to time
- 3. Playwriting
 - a. To afford pupils an opportunity for creative writing
 - b. To stimulate pupils' imagination and their power to select and organize material which lends itself to dramatization
 - c. Select a play and study its composition, characters, scenes, conversation
 - d. Writing an original play based upon some type of activity in which the group may be particularly interested:
 - (1) Qualities of citizenship
 - (2) Duties of citizens
 - (3) Historical incidents
 - (4) Special days and events
- 4. Outlines and summaries
 - a. Omit insignificant details
 - b. Arrange ideas in proper sequence
 - c. Know purpose and value of outlining
 - d. Determine main topic in a paragraph and how to state an idea
 - e. Determine sub-heading
 - f. Place statements about the main topic in the proper order
 - g. Encourage pupils to outline, as a method of study in all content subjects
- C. Mechanics or functional grammar
 - 1. Sentence concept—ability to show, by oral and written work, recognition of the sentence as a language unit, by being able to apply the following:

- a. A sentence must express a complete thought
- b. A sentence must have a subject and a predicate
- 2. Kinds of sentences
 - a. Declarative—states a fact
 - b. Interrogative—asks a question
- 3. Parts of a sentence
 - a. Complete subject
 - b. Complete predicate
 - c. Simple subject
 - d. Simple predicate
- 4. Parts of speech
 - a. Nouns
 - (1) Definition
 - (2) Kinds—common and proper
 - (3) Recognition
 - (4) Practice in the use of
 - b. Pronouns
 - (1) Definition
 - (2) Recognition
 - (3) Practice—as subject and as object
 - (4) Number and kinds
 - c. Verbs
 - (1) Definition
 - (2) Recognition
 - (3) Practice in the use of
 - d. Adjectives
 - e. Adverbs
 - f. Prepositions
 - g. Conjunctions

IV. Attainments*

- A. Attainments in oral language resulting from activities which involve: Conversation, story telling, courtesy, use of telephone, poem study, dramatization, club activities, criticism, riddles, interviews, trips, excursions, and class projects:
 - 1. To plan a coherent program
 - 2. To know why topics for conversation are interesting
 - 3. Be able to act out a story spontaneously
 - 4. To be a good speaker and listener in all situations

*Adapted from a chart accompanying the English Experience Series—Neville-Kelly-Thorp—Rand McNally & Company

5. To analyze a story by picking out characters
 6. To give an explanation that is exact and complete
 7. To follow an outline in telling longer stories
 8. To use telephone for invitations, placing orders, making appointments
 9. To carry on an interview
 10. To conduct club meetings as chairman
- B. Attainments in written language resulting from activities which involve: Letter writing, records, note taking, dictionary, bibliography, biography, creative writing and newspaper:
1. To plan a program of study and make a bibliography
 2. To write a story
 3. To take down telephone messages
 4. To develop writing of friendly letters
 5. To write invitations
 6. To write an editorial
 7. To assemble information from several sources
 8. To discover and correct errors in written work
 9. To be able to write dictated work, such as recipes
 10. To know how to address envelopes and packages
 11. To write conversation
 12. To write stories, verses, or plays for special days
 13. To write an explanation
 14. To use English accurately
 15. To spell the words suitable to this grade
 16. To show a normal year's progress on any standard hand-writing scale (a speed of 70 letters per minute and a quality of 60 on the Ayres' Scale and 20 on the Freeman Scale)
- C. Attainments in formal usage resulting from activities which involve: Sentence sense, capitalization, punctuation, word usage, and parts of speech:
1. To find information in the library
 2. To understand verb agreement with subject as to number
 3. To understand the subject and predicate
 4. To use singular and plural of nouns and pronouns
 5. To use adjectives and adverbs as modifiers and to compare them
 6. To use groups of words as modifiers introduced by prepositions
 7. To use quotation marks
 8. To know common and proper nouns; singular and plural nouns

9. To begin grouping sentences into paragraphs
10. To use synonyms, antonyms, and homonyms
11. To use the following forms: rise, raise. lie, lay; say, ask; begin, began, begun; ride, rode; prepositions: at, to, off, and from; I, he, she, we, they, after as or than; hardly, scarcely; sit, sat; ask, asked
12. To be able to use pronouns, prepositions, and joining words

V. General References

It is obviously impossible to list in a course of study all of the supplementary and reference books available in the language arts. Some reference material, however, will be classified and included in the grade courses for which it seems most suitable. Reference to the worksheets for the sixth grade social studies units will give pupils a wealth of material.

A. Books

- The Courtesy Book. Nancy Dunlea. Beckley-Cardy Co., Chicago, Ill.
- English at Work—English Experience Series. Mark A. Neville, Muriel Mae Kelly, Mary Tucker Sharp. Rand McNally & Company, New York, Chicago, San Francisco
- Adventures in English. David Sinclair Burleson, Laurie Cash. Allyn and Bacon, Chicago, San Francisco
- Everyday Speech. Harley Smith, Clara E. Drefting, E. E. Lewis. American Book Company, New York
- The Reading Chorus. Helen Gertrude Hicks. Noble and Noble, New York
- The Speech Choir. Marjorie Gullan. Harper and Brothers, New York
- Growing With Books—A Reading Guide. Cadmus Books. E. M. Hale & Co., Chicago
- They All Want to Write. Alvina Treut and others. Bobbs-Merrill, New York
- The Teachers' Book of Phonetics. Barrows and Cordts. Ginn and Company, New York

B. Periodicals

- The English Journal. University of Chicago Press, Chicago, Illinois
- Elementary English Review. North End Station, Detroit, Michigan
- The Story Parade. Story Parade, Inc., 70 Fifth Avenue, New York City
- Progressive Education. Progressive Education Ass'n, 310 W. 90th St., New York City
- Childhood Education. Association for Childhood Education, 1201 Sixteenth Street, Washington, D. C.
- American Childhood. Milton Bradley Company, 74 Park St., Springfield, Mass.
- Grade Teacher. Educational Pub. Co., Dorien, Connecticut

GRADE SEVEN

I. Introduction

This seventh grade course is designed to develop skill in conversation, discussion, thinking, common activities relating to business, functional grammar, correct usage, creative writing, and other socially important language activities. Language, properly taught, provides for students interesting and highly profitable experiences in living and in expressing their ideas.

II. General Objectives

- A. To express one's thoughts clearly, freely, correctly, and in an interesting manner, both orally and in writing
- B. To interest one's self in good literature
- C. To increase one's active vocabulary
- D. To increase ability to write an interesting and well-organized paragraph, and to select and organize material effectively
- E. To learn the correct form and the desirable contents for various types of letters: friendly, business, invitations, and so forth
- F. To cultivate imagination
- G. To make habitual a conscious use of good English through a knowledge of the simpler grammatical forms
- H. To develop ability to classify and to analyze sentences as a means toward mastery of the sentence idea
- I. To eliminate grammatical errors through study of parts of speech
- J. To cultivate the habit of speaking briefly, to the point, and connectedly in all work, using the voice well and the body effectively

III. Activities and Procedure

- A. Oral composition
 1. Conversation—in this grade the children should be taught:
 - a. To realize the value of their own experiences as a source of conversation
 - b. To be able to talk about current events of civic and vocational nature
 - c. To engage in conversations using their own experiences, such as comparing places they have visited or exhibits they have seen, radio, movies, newspapers, magazines, or books, as sources of information
 2. Story telling
 - a. To select and relate stories in terms of the audience and in keeping with the spirit of the occasion

- b. To identify characters at the beginning of the story or as they appear
- c. To acquire freedom of expression in relating experiences, stories, anecdotes, and reports of books read
- d. To complete a story that has been partly told
- 3. Use of telephone with emphasis on common courtesies
 - a. To give necessary information definitely when answering a call
 - b. To secure necessary business information; to do the telephoning that needs to be done in connection with any school activity, such as issuing invitations to a party, securing permission for an excursion, inviting visitors to class
- 4. Announcements, explanations, and directions
 - a. To use the many opportunities which arise in the content subjects for the use of announcements, explanations, and directions
 - b. To utilize the language period for the preparation of announcements, explanations, and directions needed in other school activities
- 5. Talks, speeches, and reports
 - a. To give an extemporaneous talk in a logical, easy way
 - b. To have an attitude of respect for the audience
 - c. To have practice lessons in which topics are suggested and children list the interesting points to talk about
- 6. Helpful and remedial devices
 - a. Make a diagnosis through
 - (1) Observations of pupil
 - (2) Employment of a check list
 - b. Give progressive, individual assignments appropriate to the needs of each child
 - c. Engender self-confidence by:
 - (1) Requiring careful and thorough preparation
 - (2) Making assignments specific
 - (3) Meeting the timid privately for rehearsals
 - (4) Allowing the child to demonstrate his progress in some phase of speech
 - (5) Giving special responsibilities
 - (6) Encouraging work in the field of pupil interest
 - d. Offer criticism by:
 - (1) Encouraging self-criticism
 - (2) Encouraging pupils to criticize one another
 - (3) Avoiding direct comparisons of individuals

- (4) Criticizing some pupils privately
- e. Calm the unduly nervous child
 - (1) Teach control by example, not by repression and nagging
 - (2) Have any physical ailment corrected
 - (3) Check on his environments and habits
 - (4) Study his social activities and provide activities in which he can take part
 - (5) Do not baby the child
 - (6) Cast him in plays as a quiet character
- f. Stimulate the inert child
 - (1) The first five applying to the unduly nervous (e), apply here as well
 - (2) Assign special work in the field of possible hobbies
 - (3) Cast him in plays as an energetic, nervous type
 - (4) Be enthusiastic about his work
- g. Help the bashful, repressed child
 - (1) Give the child something to do with his hands
 - (2) Ask him to speak on subjects that fascinate him
 - (3) Assign him tasks that he can do successfully
 - (4) Let him speak to the teacher alone, then to a few, then to the whole class
- h. Help the frightened child
 - (1) Make his work so interesting that he loses himself in it
 - (2) Praise him whenever possible
 - (3) Insist on thorough preparation
 - (4) Don't let children criticize him severely
 - (5) Provide a limited amount of private recitation
 - (6) Provide small group activities for the child
- i. Help the egotistical child
 - (1) Investigate home environment to find the cause of egotism
 - (2) Have the class criticize him
 - (3) Cast him in unimportant parts in plays
 - (4) Tell him why other pupils don't like him
 - (5) Give special praise to children who are not egotistical
- j. Help the overly aggressive child
 - (1) Try to discover the reason for his aggressive nature
 - (2) Take him out of the class group
 - (3) Set him to work independently

B. Written composition

1. Letter writing

- a. An interesting friendly letter
- b. An order for books, a magazine, or for equipment
- c. A request for information
- d. An apology or a correction
- e. An informal note
- f. An excuse

2. Book reports

- a. Making the outline
- b. Following the outline without making the book report stilted
- c. Develop well-expressed written book reports with due regard to sentence structure, paragraphing, outlining, and word usage

3. Descriptions, announcements, directions

- a. Include essential points
- b. Be clear and concise

4. Creative writing

- a. Study and write simple dramatizations and short plays correlated with the work in other courses
- b. Imaginative stories
- c. Compositions dealing with personal experiences

5. Dictionary study

- a. How to use the dictionary so that it is of the utmost help
- b. Forming the habit of frequent references to the dictionary
- c. New words from written work may be referred to speech clubs

C. Functional grammar

1. Review work of the preceding grade as far as need be, and provide for deficiencies in preparation, particularly for weaknesses in the sixth-grade grammar facts

2. Sentence recognition

- a. Recognition and use of the simple sentence
- b. Recognition and use of the simple subject and predicate in the simple sentence
- c. Recognition and use of the compound subject and compound predicate in the simple sentence
- d. Recognition and use of compound sentence

3. Sentence analysis—study of phrases

- a. Special emphasis on adverbial and adjectival phrases
- b. Study of prepositions

4. Punctuation and capitalization
 - a. Develop the habit of using commas
 - (1) To separate city and state
 - (2) To separate date of month and year
 - (3) To separate words in a series
 - (4) After salutation in informal notes
 - (5) After the complimentary close in all letters
 - (6) After "yes" and "no" in informal responses
 - (7) Before a short quotation
 - b. Use colon after salutation in a business letter
 - c. Use period after abbreviations
 - d. Use period at end of declarative and imperative statements, question mark after an interrogative statement, and an exclamation point when needed
 - e. Develop habit of using capital letters to begin:
 - (1) First word in a sentence
 - (2) Proper names
 - (3) Names of days of the week
 - (4) Names of the months
5. Clauses
 - a. Recognition of dependent and independent parts (clauses) of the sentence
 - b. Distinguishing between a sentence and a clause
 - c. Placing the clause as near as possible to the word it modifies
 - d. Transposing clauses in sentences for variety and force
 - e. Analyzing sentences containing adjectives and adverb clauses
6. Parts of speech
 - a. Nouns
 - (1) Use as subject and object of the verb
 - (2) Use as a predicate word
 - b. Pronouns
 - (1) As predicate word
 - (2) Drill in picking out pronouns in sentences and naming the antecedents
 - c. Verbs
 - (1) Linking verbs used with predicate nouns, pronouns, and adjectives
 - (2) Correct agreement with subjects
 - (3) Principal parts of verbs

d. Adjectives

- (1) Use as predicate word
- (2) Develop variety and discrimination in the choice of adjectives

e. Adverbs

- (1) Principal use as verb modifiers
- (2) Minor use to modify adjectives and other adverbs

f. Conjunctions—Use in compound and complex sentences

g. Prepositions

h. Interjections

IV. Attainments*

A. Attainments in oral language resulting from activities which involve: Conversation, story telling, courtesy, use of telephone, poem study, dramatization, club activities, criticism, riddles, interviews, trips, excursions, and class projects:

1. To enrich story telling through vocabulary development and use of picture words
2. To give clear explanations and directions
3. To develop distinctive conversation which others enjoy
4. To use the telephone for conversation, giving orders and issuing invitations
5. To prepare and give a concise but inclusive report
6. To show courtesy in debate
7. To be able to act parts of plays spontaneously
8. To build a story from the opening sentence through the climax
9. To know how to perform the duties of a perfect host or hostess
10. To conduct club meetings
11. To know how to make suggestions that are valuable contributions to group or community projects
12. To know how to appraise the newspaper, the radio, the movies, and addresses, and report on them

B. Attainments in written language resulting from activities which involve: Letter writing, records, note taking, dictionary, bibliography, biography, creative writing, and newspaper:

1. To make written work pleasing in appearance
2. To be able to write friendly and business letters

*Adapted from a chart accompanying the English Experience Series—Neville-Kelly-Thorp—Rand McNally & Company

3. To be able to plan a class newspaper
 4. To write interestingly
 5. To write advertisements
 6. To be able to take notes on a lecture or reading material
 7. To outline material for reports
 8. To write a brief but inclusive report
 9. To make out correctly such business forms as bank forms, money orders, order blanks, telegrams, and others
 10. To write descriptions which are vivid
 11. To work for variety in building sentences
 12. To give information in brief forms
 13. To make lists of dictionary usage
 14. To card-catalogue a library
 15. To spell the words suitable to this grade
 16. To show a year's progress on any standard writing scale (a speed of 75 letters per minute and a quality of 65 on Ayres' Scale and a quality of 22 on Freeman's Scale)
- C. Attainments in formal usage resulting from activities which involve: Sentence sense, capitalization, punctuation, word usage, and parts of speech:
1. To know all uses and forms of verbs, nouns, pronouns, subject and simple predicate, and to recognize adjectives, predicate adjectives, direct objects, indirect objects, and predicate nominatives
 2. To recognize the three cases of nouns and pronouns
 3. To recognize phrases and clauses
 4. To know parts of speech (eight)
 5. To use capitalization wherever it should be used
 6. To use period wherever it should be used
 7. To use an exclamation point wherever it should be used
 8. To use a question mark wherever it should be used
 9. To use an apostrophe to show ownership or in a contraction
 10. To use a hyphen to separate syllables in words
 11. To know the different uses of adverbs and adjectives
 12. To expand or contract parts of a sentence to give it clarity
 13. To use a comma or a colon in a letter

14. To use correct forms for: swim; show; drive; shake; tear; fly; blow; draw; bring; take; in, into; very, real; who, which, whom; hardly, scarcely; burst; climb; swing; lose; get, become; either, or, neither, nor; without, unless; like, as
15. To use properly this, that, these, those, as demonstratives and as adjectives
16. To use adjectives and not adverbs after linking words

V. Bibliography

- Everyday Good Manners for Boys and Girls. Ernestine Louise Badt. Laidlaw Brothers, New York
- The Little Book of English Composition. E. A. Gross. Little Brown & Company, Boston, Massachusetts
- A Simplified Review of English Grammar. Thomas Besire Pawley. The Norman Company, 102 S. Frederick St., Baltimore
- Experiences in Speaking. Seely and Hackett. Scott, Foresman and Company, New York
- The Reading Chorus Helen Gertrude Hicks. Noble and Noble, New York City
- Building Language Skills. Tresslar and Shelmadine. D. C. Heath and Company, Boston, Massachusetts

GRADE EIGHT

I. General Statement

Most of the pupils of the eighth grade level are entering the period of adolescence in which they are very self-conscious and easily discouraged. The teacher must bear this in mind as she is guiding and encouraging the pupil.

The general objectives are divided into three groups: oral composition, written composition, and functional grammar. As the objectives in these courses are somewhat the same as those for the seventh grade, it is expected that eighth graders will more nearly approach mastery of these objectives, and in so doing they will minimize the frequency of grammatical errors in oral and written work and gain poise and confidence in oral composition.

It will be necessary to fit in the study of functional grammar as the need arises.

II. General Objectives

A. Oral composition. If pupils have not already done so, they must here acquire ability:

1. To tell original stories based on personal interests and imagination
2. To make announcements, short speeches, and presentations, effectively and with ease
3. To be able to substitute a variety of synonyms for such expressions as nice, good, kind; e. g., delicious, generous, luscious, thoughtful, friendly, and gentle
4. To state opinions honestly but impersonally
5. To take part in a business discussion in a desirable manner
6. To converse at ease at social functions
7. To show reasonable facility and discrimination in the choice of words, phrases, and clauses for the expression of ideas
8. To conduct club meetings according to parliamentary rules
9. To make a pleasing, oral report with or without an outline, with good sentence forms, proper sequence, and clear enunciation, while avoiding habitual use of "run-on" compound expressions
10. To develop habits of courtesy in both social and business life
11. To use an effective tone of voice
12. To acquire poise, correct posture, and confidence, in public speaking

13. To reduce self-consciousness by:
 - a. Centering one's attention primarily on the other person's thought
 - b. Realizing that occasional silences are natural
 14. To criticize tactfully when criticism is necessary
 15. To report accurately information found, and include details or illustrations which would make clearer the fact or its significance
 16. To take part in argumentative talk, informal arguments, and debates
 17. To memorize at least ten poems of eighth grade level
- B. Written composition
1. To express ideas clearly and logically in writing
 2. To meet adequately the writing situations in everyday life
 3. To use good form, order, and arrangement for all written work
 4. To make logical outlines both for selections studied and for original work
 5. To retain, expand, and strengthen abilities achieved in preceding grades
- C. Functional grammar
1. To recognize and use the eight parts of speech, infinitives, gerunds, and participles
 2. To classify and to analyze sentences as a means toward mastery of the sentence idea
 3. To eliminate grammatical errors through study of the parts of speech
 4. To use good English through a knowledge of the simpler grammatical forms

III. Procedures and Activities

A. Oral composition

1. Conversation
 - a. At the table
 - b. In a group
 - c. During introductions
 - d. In public places
2. Reproduction
 - a. Story telling
 - b. Book reports
 - c. Bibliographies
 - d. Passing on to others what is read and heard

3. Formal Speech

- a. Reports on experiences that someone has had
- b. Declamation
- c. Current events
- d. Debate
- e. Organizing clubs, and being able to conduct a meeting according to Parliamentary rules
- f. Making announcements

4. Dramatization

- a. Choric speaking
- b. Expressive speaking

B. Written composition

1. Letters

a. Social letters

- (1) Correct letter forms
- (2) Properly addressed envelopes
- (3) Use of correct stationery

b. Business letters

- (1) Correct form
- (2) Brevity and clearness

c. Friendly letters

- (1) Writing personal experiences in letters

d. Informal and formal notes

(1) Informal

- (a) State the subject clearly
- (b) Develop subject of the note logically but briefly
- (c) Write a note in keeping with the purpose: in an invitation be cordial; in a note of condolence, be sympathetic; in a note of regret, be sincere; in a note of acceptance, express pleasure in anticipation; and in an excuse, be apologetic. The note is an expression of one's personality.
- (d) Include all necessary details, as time and place, in invitations and replies

2. Notices, announcements, and advertisements

3. Notes on reading, talks, and addresses

4. Reports and summaries

- a. Committee reports
- b. Minutes of an organization
- c. Reports for a school paper
- d. Book reports

5. Original, creative, and retold stories
 - a. Stories, poems, diaries, papers, articles
6. Forms
 - a. Checks
 - b. Deposit slips
 - c. Library call slips
 - d. Standard tests
 - e. Questionnaires
 - f. P. O. money order applications
 - g. High school enrollment blanks
 - h. Library applications
 - i. Sample ballots
 - j. Income tax blanks
7. Biographies
8. Bibliographies
9. Themes
10. Directions for playing a game
11. Report for a school paper
12. Telegram
- C. Functional grammar
 1. Review of work in grammar for the seventh grade
 2. Analysis and diagramming
 - a. Sentence recognition
 - (1) Compound sentence
 - (2) Complex sentence
 - (3) Simple sentence
 - b. Clauses
 - (1) Adjective clauses
 - (2) Adverbial clauses
 - (3) Noun (substantive clauses)
 - c. Phrases
 - (1) Prepositional phrases
 - (a) Adverbial
 - (b) Adjectival
 - (c) Verb
 3. Parts of speech
 - a. Verbs
 - (1) Transitive and intransitive:
He **laid** the book on the table.
The dog **lay** by the fire yesterday.
He **sits** at the table.
Set the vase on the table

(2) Choice of right verb:

I **taught** him to swim. (learn—taught)

Take this book to John. (bring—take)

Let me go. (leave—let)

James **stayed** at the hotel for a week. (stopped)

(3) Tense forms:

He **came** home yesterday. (come—came)

He **must have** done it. (must of—must have)

He **should have** gone. (should of—should have)

He **should not** go. (hadn't ought to—should not)

(4) Verbals

(a) Gerunds

(b) Participles—eliminate dangling participles

(c) Infinitives

b. Nouns

(1) Common and proper

(2) Singular and plural

(3) Genitive (possessive case) singular and plural

(4) Uses

(a) Subject of verb

(b) Direct object of verb

(c) Object of preposition

(d) Predicate noun

(e) Noun in apposition

(f) Direct address

(g) Genitive modifier

c. Pronouns

(1) Cases

(a) Nominative

(b) Possessive

(c) Accusative (objective)

(2) Person

(3) Number

(4) Agreement of pronoun with antecedent

d. Adjective

(1) Kinds

(a) Descriptive

(b) Limiting

1—Articles—e. g., a, the

2—Numeral—e. g., one, first

3—Pronominal adjectives

a—Possessive objectives—e. g., **my friend**b—Demonstrative adjectives—e. g., **this** dayc—Interrogative adjectives—e. g., **which** floord—Relative adjectives—e. g., She was here in June during **which** month I was away.e—Indefinite adjectives—e. g., **any** kind

(2) Comparison

(a) Degree

1—Positive

2—Comparative

3—Superlative

(3) Use of adjectives in sentences

(a) Modifier of nouns

(b) Predicate words

e. Adverbs

(1) Classes

(a) Time—e. g., We went **early**.(b) Place—e. g., John is **here**.(c) Degree—e. g., We were **very** glad.(d) Manner—e. g., Mary ran **swiftly**.

(2) Comparison

(a) Positive

(b) Comparative

(c) Superlative

f. Prepositions

(1) Be able to recognize

(2) Eliminate needless prepositions

(3) Discriminate in the use of: between, among; in, into

g. Conjunctions

(1) Use of correct connectives

(a) Subordinate

(b) Coordinate

(2) Overuse of conjunction (the "and" habit)

h. Interjections

4. Punctuation

a. Period

(1) To indicate end of a declarative or an imperative sentence

(2) To indicate an abbreviation

- (3) To indicate a request courteously worded as a question
- b. Comma
 - (1) To separate principal clauses connected by **and, but, or, for**
 - (2) To separate items in a series
 - (3) To separate items in addresses, dates, geographical names
 - (4) To separate from the principal clause such preliminary sentence elements as subordinate clauses, verbals and verbal phrases, nouns in direct addresses, yes, no, etc.
 - (5) To set off interrupting expressions such as appositives, parenthetical expressions, and nonrestrictive clauses
- c. Semi-colon
 - (1) To separate principal clauses not joined by "and," "or," "but," "for"
 - (2) To separate sentence parts containing commas
- d. Dash: In place of a comma to call attention to what is following
- e. Colon
 - (1) To introduce a long or formal, direct quotation
 - (2) To introduce enumeration, explanation, or illustration
 - (3) To follow the salutation in a business letter
- f. Parenthesis: To set off material put into quotation by the person quoting
- g. Question mark: To indicate doubt, humor, irony, in the sentence
- h. Exclamation point: To indicate the end of an exclamatory sentence
- i. Apostrophe
 - (1) To indicate the possessive case
 - (2) To indicate the omission of a letter
 - (3) To indicate the formation of the plural of letters and figures
- j. Quotation marks
 - (1) To indicate a direct quotation
 - (2) To indicate the title of an article in a magazine or a short story, sometimes to indicate the title of a book

IV. Attainments*

- A. Attainments in oral language resulting from activities which involve: Conversation, story telling, courtesy, use of telephone, poem study, dramatization, club activities, criticism, riddles, interviews, trips, excursions, and class projects:
1. To have ease and assurance in conversation with adults
 2. To participate readily in social and group activities involving language
 3. To use the kind of sentence that best fits each particular expression
 4. To "sell an idea" in such language situations as convincing a hearer, winning a point, applying for a job, or making a speech
 5. To summarize and evaluate reading material thoroughly
 6. To carry on business meetings in club activities on an adult level
 7. To make clear, intelligible announcements
 8. To take part in debates, interviews, and informal discussions
 9. To report accurate and authentic information, giving sources
 10. To prepare and act a play
 11. To memorize, easily, things which add to pleasure
 12. To have complete control of such social situations as greeting visitors, making introductions, and giving directions
- B. Attainments in written language resulting from activities which involve: Letter writing, records, note taking, dictionary, bibliography, biography, creative writing, and newspaper:
1. To make and use a good school notebook
 2. To write interesting stories in adult vocabulary
 3. To use the mails intelligently as a means of doing business
 4. To make concise reports and summaries
 5. To write a distinguishing description of some place, person, or thing
 6. To write a letter of application
 7. To know how to indicate borrowed material
 8. To write clear explanations and definitions
 9. To make a bibliography
 10. To sift information in making outlines and notes on reading material

*Adapted from a chart accompanying the English Experience Series—Neville-Kelly-Thorp—Rand McNally & Company

11. To spell the words suitable to this grade
12. To show a year's progress on any standard writing scale (a speed of 75 letters per minute and a quality of 70 on Ayres' Scale and a quality of 24 on Freeman's Scale)
- C. Attainments in formal usage resulting from activities which involve: Sentence sense, capitalization, punctuation, word usage, and parts of speech:
 1. To recognize without hesitation the subject and predicate (simple and complete)
 2. To recognize the eight parts of speech in any usage
 3. To know personal pronouns, demonstrative pronouns, indefinite pronouns, interrogative pronouns, and relative pronouns
 4. To tell whether a word is a predicate adjective, a predicate nominative, a direct object, an indirect object, or the object of a preposition
 5. To know the three cases of nouns and pronouns
 6. To use automatically the correct parts of verbs
 7. To know the two voices of verbs
 8. To know the three moods of verbs
 9. To know how to conjugate a verb
 10. To recognize clauses
 11. To recognize verbals in sentences
 12. To know all uses of capital letters and punctuation marks
 13. To use correct forms of words: some, somewhat; most, almost; either, neither; or, nor; beside, besides; between, among; without, unless, like, as, different from; shall, will; borrow, lend; ought; hides; shakes; drives; becomes; shines; drowns
 14. To know how to locate and use sources of information
 15. To understand how sentences are used and how they are formed

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COURSE OF STUDY IN READING

General Suggestions

I. Introductory Statement

Second only to the ability of an individual to express himself to others and to understand their expressions through the medium of spoken language, comes the ability to read the words which the individual himself and others have committed to the printed or written page. Reading is a tool necessary to the acquirement of knowledge in all subjects and as such it has a place of paramount importance in the elementary school.

The Report of the Committee on Reading of the National Society for the Study of Education, set forth in the Twenty-fourth Yearbook of the society in 1924, was the bible of teachers of reading for more than a decade. It seems a safe assumption that the later studies of this society, as described in the Thirty-sixth Yearbook, will guide the teaching of reading in the elementary schools for some time to come.

The findings of the committee, as set forth in the second report, will be the basis of this course of study in reading. The reservation is made, however, that other factors which will determine the program in reading for Montana will grow out of the types of living common to the State, and other phases of the school curriculum which those types of living suggest. Even reading will not be an end in itself, but children will learn to read because through reading, the entertainment, knowledge, and culture so necessary to happy living are obtainable.

II. General Objectives: Aims shared by the reading period and various curriculum fields

- A. To arouse keen interest in learning to read
- B. To promote increased efficiency in both oral and silent reading
- C. To extend and enrich experience and to satisfy interests and needs
- D. To cultivate strong motives for and permanent interest in reading
- E. To elevate tastes in reading and to promote discrimination in selecting books, magazines, and newspapers to read
- F. To acquaint pupils with the sources and values of different kinds of reading material and to develop ability to use them intelligently and critically

III. Texts and Equipment

A. For the list of basal and supplementary texts for reading in the elementary schools, the teacher is referred to the booklet, "Price List of Textbooks for School Officers" (State Department of Public Instruction, Helena). She will find that the list is full and varied, with sufficient provision for the literary and the informational types of reading, both of which are needed to make a balanced program. Accompanying some of the sets of books there listed the teacher will find helps and manuals that she should make much use of in her teaching of reading. By studying these manuals, the teacher may obtain a better understanding of the author's work and purpose, which should aid in her presentation of the lessons.

In addition to books in this price list, each unit work sheet provides a list of books which contains stories and informational material pertinent to the unit, within the reading ability of children of the grade to which the unit is assigned. Brief annotations in these bibliographies describe these books in order that the teacher may be assisted in finding the materials that will meet the particular needs of her pupils and will contribute to the enrichment of their reading.

B. Equipment: In addition to books, there are certain aids which should be accessible, some of which are mentioned on pp. 12-13. Others are:

1. Material for seat and bench work
2. Equipment for phonics
3. Flash cards: many kinds of cardboard, tagboard, etc.
4. Magazines: children's
5. Pictures of all kinds
6. Clay for modeling
7. Crayons and colored chalk
8. Various games and puzzles
9. Magazines to cut up

IV. Time Allotment

It is the plan of this course of study that in addition to the purposeful reading which is essential to the solution of the problems raised in the forty-eight units of work which comprise the Montana elementary school program, there will also be basic instruction in the attitudes and habits of reading, for which interesting activities shall be provided in definite reading periods. Teachers who consult the recommendations in the introductory part of this book relating to daily programs will find the suggestion that a considerable part of the school day shall be used for this purpose.

V. Procedure and Content

While it is the plan of this course to suggest, briefly, certain techniques and procedures which apply to the teaching of reading at the different levels, all teachers of reading at any level must have, in addition to an understanding of their own immediate processes, an appreciation of the whole field of reading and of the whole job of teaching it. For that reason some significant facts about reading should be noted here.

A. Types of reading as determined by functions

1. Recreational or play-type reading

This is reading for recreational purposes, and it should be given a large share of the reading time because of its extensive social use. The material used must build permanent interests and appreciations for good literature. It should demand neither rigid drill nor analytic piecemeal study. The child reads material at his level of interest and also at his level of reading development. His reading should extend his experience, and develop strong motives for and a permanent interest in reading, in order to develop desirable attitudes and effective reasoning habits and skills. The teacher uses informal methods of checking to discover what is being achieved in reaching these objectives.

2. Work-type

This is reading (silently) to obtain information on a problem, to become acquainted with a situation, or a condition, or to follow directions. This type of reading is conditioned by several factors:

- a. The child must be able to find material related to his problem which he can read
- b. He should be able to judge the reliability of what he reads
- c. He should be able to organize the material so that he can remember what he reads
- d. He must be able to evaluate; to know what he needs to recall

Training in these abilities should continue through all the grades. The material should be factual, rather than literary in character, and it must be written in a manner that interests the child, and promotes the desire for further reading. Informal tests should be used to determine achievement and progress and to locate pupil difficulties.

3. Remedial reading

Remedies in reading are like remedies in medicine, in that they are needed only when something has interfered

with the normal development of the reading ability. The reading difficulties may develop from:

- a. The too-early discontinuance of teaching reading skills
- b. Lack of follow-up work necessary to establish certain skills
- c. Poor choice of materials
- d. Poor motivation
- e. Poor use of tests (no tests are of much value unless reteaching follows immediately, to correct weaknesses the tests reveal)
- f. Lack of sufficient mental maturity in the child who is trying to learn to read
- g. Physical defects, as in vision or in hearing
- h. The acquisition of faulty habits

The teacher must determine the cause of the reading difficulty by intelligent observation and testing. The remedial instruction must then be aimed to correct the disabilities which the diagnosis reveals. The instruction is individual for individual needs. The teaching follows the same general principles of learning that apply in any other types of instruction, with occasional departures to meet particular situations. The teacher must apply these principles with unusual skill and understanding.

B. Types of reading as to method (manner)

1. Oral reading

- a. General statement: Oral reading is of major importance in the primary grades and of special importance at any level for children who have reading difficulties. Faulty habits which are contributing to the child's reading difficulties and consequent lack of progress are more readily discovered and diagnosed by the teacher when the child is reading orally than when he is reading silently. It is fundamental that when a teacher is making use of oral reading for diagnosing pupil difficulties the child should be reading individually to the teacher and not to other children.

In primary grades oral reading is its own motivation. It is a showy procedure and primary children delight to read aloud to the group. There must be an audience situation in which the other children are actually listening, and not following the reader word for word by reading the same story in books in their own hands. To the adult mind, this audience situation would be largely destroyed by the fact that the other children may

all have read the story, but this does not appear to distress the child reader so long as the others really listen. As soon as the child reaches the stage where he discovers for himself new material which others in the group have not read, and reads these materials orally, the audience situation is perfected.

When properly directed, oral reading widens speaking vocabulary. The material to be read orally must always be read silently first so that new words are mastered. If the word is one which has not been in the speaking vocabulary of the child, meeting it in the context of reading material and using it orally before others will in all likelihood introduce it permanently to his use.

As the child reads orally the teacher observes the factors affecting his reading, such as speech defects, obvious failures to get the thought, disregard of punctuation, poor phrasing, word-by-word reading, the insertion or omission of words, the reversals of words or letters, short or jerky eye movement, and other difficulties. A record of these difficulties should be kept and the proper help given where needed.

Oral reading is an aid to the enjoyment of certain types of literary material, especially poetry, conversations, and humor. Children in school will want to read aloud reports and news items to others just as members of a home group frequently read something from the evening paper to those who are gathered about.

In formal school organization the chief disadvantage of oral reading has been that only one pupil may read at a time because the teacher can listen to only one. In a school where groups of children who are developing a common interest frequently work in a remote corner of the room, or even in an alcove or other room, it is quite possible that oral reading might be in progress in several groups at once. If oral reading is always to be in the presence of the teacher she can arrange for each child to read aloud several times each week. There is a danger here that the conscientious teacher, in order to make sure that no one is missed, follows a daily procedure of round-the-class routine, which can easily become monotonous.

Aside from audience reading, oral reading has other uses, as reading to improve voice and expression; and phrase reading or reading with close observation of punctuation, so that proper inflection becomes an aid to giving the listener the meaning.

- b. The objectives to be attained in oral reading are:
 - (1) Ability to make an appropriate selection of material to be read
 - (2) Evidence of careful preparation
 - (3) A pleasing, well-modulated, and easily understood reading voice
 - (4) Pleasing position and poise in the reader
 - (5) Proper regard for the listener
- c. A suggested plan for a lesson
 - (1) The teacher scans the story for unfamiliar words
 - (2) Exercises are given on the recognition of these words
 - (3) Exercises may be given in reading these words in phrases and sentences
 - (4) The teacher provides a motivation for the lesson
This may be to give information which the listeners wish to get, to give the listeners pleasure, or perhaps to stimulate the listener's interest in something in which the reader is already interested.
 - (5) The material is divided into thought sections which different children read
 - (6) The teacher observes the reactions of the listeners and in some cases checks for meaning and comprehension. The teacher should guard against minute checking which will destroy interest in the reading as a whole.
 - (7) Review lessons: in word meaning or word recognition, in drills to correct various types of errors, and in reading for expression or to give better interpretation, if time permits

2. Silent reading

- a. General statement: It is now generally agreed that from the beginning children should learn to read both orally and silently. As they grow in reading ability, the opportunities for silent reading increase, both for groups with common materials and for individuals with different materials. The teacher should make adequate provision for materials for silent reading of the rapid and recreative type. The materials provided for reading should keep pace with the actual abilities of the readers and not with any arbitrary school grade. Whenever it is necessary for older children to read materials which are written in the simpler vocabulary of an earlier grade, care should be taken to find materials which meet the interests of the older children who are reading them.

b. The objective is to develop the attitudes, habits, skills, and abilities essential to enjoyable, silent reading of story selections and very simple books

c. Procedure in teaching silent reading

(1) Motivation

Definite and compelling purposes promote improvement in silent reading as in the case of a child who reads to get some information that will help him carry out a project or to learn how to do something. Any situation that gives the child a real desire to learn the writer's thought sets the stage for improvement in reading.

(2) Speed and comprehension

There must be a balance between speed and comprehension, and pupils who are deficient in either need special help. Since comprehension is more important than speed the first efforts should be placed upon developing comprehension. For many children, however, improvement in the reading rate leads to an improvement in their comprehension. Individual variations should be recognized.

Many children who comprehend well what they read do not realize that their slow rate of reading is a serious handicap to them and accordingly have made no conscious effort to increase their speed. The teacher should stress the importance of this skill and make use of timed exercises. Some difficulties influencing the rate of reading, as well as the comprehension, are a limited vocabulary, failure to recognize words, poor eye movements, lip movements, vocalization, or physical defects. These must be corrected before fluent silent reading can be attained.

The rate of reading will vary with an individual and will depend upon the type of material which is being read. When a child is reading something that requires considerable concentration or rereading, reading will probably become slower. It is better, therefore, to think of the reading rate only in terms of the specific type of material read, the purpose of the reading, and the occasion. Each child should be taught to read as rapidly as he can with comfort and without strain and yet accomplish the purpose of his reading. In the assignment of the material to be read, the teacher should be sure the child understands definitely, before the actual reading procedure begins, what he may be expected to comprehend and what he may be expected to remember.

Individual silent reading should be encouraged by the teacher and a variety of materials should be provided.

D. Periods in a reading program and their approximate locations in the elementary school are:

- | | | |
|--|---|-------------------------|
| 1. Reading readiness | } | Preschool and Grade One |
| 2. Initial growth | | |
| 3. Rapid progress—Grades Two and Three | | |
| 4. Extended experiences—Grades Four, Five, and Six | | |
| 5. Refined type of reading—Grades Seven and Eight | | |

VI. Measuring Results

Since the teaching of reading is to be an individual process in which the teacher tries to overcome weaknesses which her pupils may have, it is essential that she be able to determine what those weaknesses are. So many factors enter into a child's ability to read that no single test will give the teacher all the information she should have. Rather, she will need to make what Dr. Gates calls an "Inventory" of all the phases of reading ability. There are listed here a number of these phases together with suggestions for measuring them:

A. Reading opportunity in the home. There are several factors which enter into the chance a child has for reading practice outside of school. The teacher is apt to think these factors are beyond her control and her responsibility, but this is not the case:

1. Availability of reading material. The teacher can observe the voluntary reports of children who tell about something they have read outside of school. Perhaps on Monday morning she can stimulate this outside reading by setting aside a period for a discussion of things read over the week end. The children must be encouraged to tell briefly about the things they have read. If a child cannot remember what he has read, some suggestions by the teacher or a list on the blackboard might remind him of things he has overlooked. These suggestions should include:

- a. Newspapers and farm papers
- b. Advertisements
- c. The funnies or comic strips
- d. Directions for doing things
- e. The words of a song
- f. A letter from a friend or relative
- g. Books belonging to brother or sister
- h. A program of a community meeting

For children who report very little home reading the teacher may do several things. She may ask parents or older brothers and sisters to help by providing some reading material. This is not to be assigned to the child for reading but should be on a table or shelf at home where its presence cannot escape notice. Parents might subscribe for a child's magazine. The teacher may lend the child material to take home, suggesting informally that he show it to his mother or to other children. The weekly news readers to which many schools subscribe might well be given to the children as they are leaving for home in order to stimulate home news-reading instead of being assigned for reading during school hours. A child might be encouraged to assemble a file of advertising leaflets or posters, which are not pages clipped from newspapers but are things that can be picked up on the store counter or may be found on the porch or in the mailbox. Occasionally, such a collection may be brought to school for a display.

2. A place to read. Suggestions to parents or brothers and sisters might easily lead to the setting aside of a reading corner in the home where a proper light and a comfortable chair encourage reading.
3. A time to read. The teacher may do much, as she comes to know the homes in her community, to encourage the habit of family reading. There should be a time of day when the radio is not too loud and when chores, games, and conversations are not too diverting.

In her inventory the teacher should score each child under the head of home-reading opportunity. She might use a ten-point grade. A score of ten would indicate a child whose home situation was the ideal or best possible. Few children would have such a score. Many children might score eight, six, or four, and there would be some cases where a score of one or two would be a constant reminder to the teacher that something should be done.

B. Amount and type of voluntary reading

Such a record should be kept and should include voluntary reading done both at home and at school. Observation of children in and out of school, questioning them about what they have read, and reports from parents and others will form the basis for this grade in the inventory. Doubtless, in many cases there will be a correlation between the opportunity to read and the amount and type of reading, but not necessarily so. There will be children who find an opportunity for outside reading in spite of serious handicaps, and children who take little advantage of ideal home-reading situations. If a basis of ten is used for grading under this head, a

grade of ten would indicate a veritable bookworm: a child who reads at every opportunity and who chooses informative and well-written material. The child who would rather do anything else than read, or one who reads occasionally but never gets farther than the comic books, would have a low grade.

C. Attitude toward reading as shown in classroom activities. The grading on a ten-point scale would follow a pattern about like this:

1. 8-9-10. This pupil takes obvious delight in reading; is interested in many kinds of reading materials, and enjoys telling about what he has read
2. 5-6-7-8. This pupil seems to enjoy reading certain things but has a narrow interest range; responds well to urging
3. 3-4-5-6. This pupil reads required lessons with some interest; responds fairly well when the teacher supplies good motivation
4. 1-2-3. This pupil is reluctant to read at any time

D. Errors in oral reading. The teacher can measure oral reading objectively by assigning each child a unit of about a hundred words (less in first and second grades) to read. The material should be new to the pupils and should be of the grade of difficulty suited to the pupil's location in school or to a grade lower. The teacher unobtrusively makes a mark for each error, such as mispronunciation, repetition, halting, or omission. A score of ten on a basis of ten would indicate that the child had made no errors at all. A score of one or two would indicate that the child is obviously unprepared to read, orally, reading matter of the grade of difficulty being used while an intermediate score would indicate quite objectively the number of errors the pupil made. A child should be prompted on difficult words which he mis-calls or after a hesitation of about five seconds.

E. Understanding words and concepts

The teacher can measure this type of understanding very well by using school textbooks in such subjects as history or science. If books which the pupils have not used are unavailable, select parts of their own texts which they have not read. The teacher reads through several paragraphs and picks out ten difficult words or phrases. These she writes in a column, leaving a blank space beside each for a definition. In a parallel column she writes easy definitions. She must have one or two extra definitions and the definitions must not be placed opposite the proper words. The pupils read the paragraphs chosen, to get help from the context, and write the proper definitions in the blank space. For example, if the teacher chose "The Growth of the American

People and Nation," Kelty, which has been widely used as a fifth grade history book in Montana and used the section on page 398 about the Building of the Union Pacific, her test, which she could write on the board or on paper with a duplication device, would look something like this:

.....tunnels	part that was finished
.....deserts	men who measure land
.....iron	steam engine
.....ships	precious stones
.....lumber	dry sandy places
.....surveyors	holes dug through
	mountains
.....route	boards and planks
.....locomotives	things which are
	needed
.....completed section	a hard metal
.....supplies	boats
	path or way

The child fits the proper definition to the word and is scored for the number he gets right. Several such tests would give a more valid score than just one. The average of the child's scores would be his grade on a scale of ten.

F. Understanding paragraphs

To test a pupil's ability to understand paragraphs, a paragraph is chosen with which the child is not too familiar. The teacher uses a multiple choice arrangement of four or five sentences, each of which might appear to the child to be the main idea in the paragraph but only one of which actually is. For example, if the paragraph about "Lincoln, The Man of the Hour," on page 329 of "The Growth of the American People and Nation," were chosen the teacher might list:

1. The North and South were getting farther apart
2. The man who was to bear the burden of the quarrels was as yet unknown
3. There were serious quarrels over slavery
4. There should never have been a war between the North and South
5. The South should have given up their slaves

The child reads the paragraph and checks the sentence which gives the main idea of the paragraph. Several such examinations should be given to determine a child's grade. If five examinations are given, he would get a score of ten if he found the correct sentence each time, eight if he missed in one selection, and so on. There would be no credit for anything except the correct answer.

G. Ability to remember what is read

The pupil reads a paragraph of about a hundred words. The teacher makes a score sheet beforehand by listing all the things that are in the paragraph. After reading the paragraph through, the child closes his book and writes down as many of the things in the paragraph as he can recall. He should be scored on several such examinations.

H. Word Analysis

The child is asked to pronounce ten words which are strange to him but to which he can apply the skills of word analysis which he has. Words should be used which break into syllables easily and which permit the application of a knowledge of phonics. Each child must be tested where others cannot hear him. It requires several lists of ten words each to give a dependable score which the teacher records as the child's grade.

I. Speed of oral reading (score on basis of tables on page 44)

J. Speed of silent reading

The teacher must make some checks for comprehension, particularly if the child suspects his reading rate is being tested. Otherwise he will skip or skim to show a higher score. (Score on the basis of the tables on page 44)

K. Speed at finding words in the dictionary

If the teacher requires the child to write down the definition she will be measuring writing speed as well as speed in finding the word. When the child finds the word, he should make a small pencil check in the margin beside the definition, or write beside each word in the list given him only the dictionary page number on which the definition appears.

L. Speed in the use of the encyclopedia

The pupil looks up five subjects in an encyclopedia of several volumes, writing down the page and volume number for each

All these skills cannot be measured in all children, as dictionaries and encyclopedias are not used in the early primary grades. When a teacher had made an inventory of a class it might look like this:

	John	Tom	Mary
1. Reading opportunity at home	9	6	3
2. Amount of voluntary reading	5	8	6
3. Attitude toward reading	5	9	7
4. Error in oral reading	6	5	9
5. Understanding words and concepts	5	8	6
6. Understanding paragraphs	5	8	7
7. Ability to remember what is read	9	7	5
8. Word analysis	3	8	9
9. Speed or oral reading	4	6	5
10. Speed or silent reading	6	8	6
	<hr/> 58	<hr/> 73	<hr/> 64

An analysis of these tests would indicate several things: John should be a much better reader. He has plenty of chance to read and he retains well what he does read. His dislike of reading probably comes from difficulties it imposes upon him, a large part of which apparently grows out of his poor analysis of words. Drill in phonics, well done, should produce a marked increase in his scores in 4, 8, and 9. His interest and his understanding probably would increase commensurately.

If Tom can just be given more opportunity to read, he will have little difficulty. The teacher should discover why his oral reading grade is low. The score he has made in word understanding might indicate that he is nervous and embarrassed when he reads. If he can be put at ease, his reading rate should improve.

Mary is a "word caller". She rarely misses a word in her oral reading as she has a mastery of the means of word recognition. She reads much too slowly, however, and her comprehension is poor. She needs to do a great deal of reading just for the fun of it. The teacher must help the home-reading situation, if possible, and must find many opportunities for Mary to browse among attractive books at school. She needs drill on getting the meaning. This drill should also improve her ability to recall what she reads.

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- B. For the Pupil: (No attempt has been made to list all the reading materials available. The books here listed include recent editions from many publishers. Teachers should secure catalogues and descriptive literature. Manuals and workbooks are available in many cases.)

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- Storm, Grace E., and others, *Guidance in Reading Series*. Lyons & Carnahan, Chicago, 1940
- Tippet, James S., *The Henry Book Series*. World Book Company, Yonkers-on-Hudson, New York, 1939
- Wellons, B., and others, *Studies in Prose and Poetry*. Laidlaw Brothers, Inc., Chicago, 1938

C. Standardized tests

Reading is one of the skills which may be measured by many of the general achievement tests. Teachers should secure catalogs and descriptive literature of testing materials from publishers.

Some publishers are:

- Bureau of Publications, Teachers' College, Columbia University, New York
- Extension Division, The State University of Iowa, Iowa City
- Gregory Test Service, Cincinnati, Ohio
- Kansas State Teachers' College, Emporia
- Public School Publishing Company, Bloomington, Illinois
- University of Chicago Press, Chicago
- World Book Company, Yonkers, New York

Tests which have wide usage include:

- Iowa Every Pupil Test of Basic Skills
- Metropolitan Achievement Tests
- New Stanford Achievement Tests
- Progressive Achievement Tests
- Unit Scales of Attainment

PRESCHOOL AND GRADE ONE

I. Introductory Statement

These years in the child's life should account for two periods in the development of reading abilities:

- A. "The stage at which readiness for reading is attained. This stage usually comprises the preschool years and often the early part of the first grade. The chief purpose of the guidance recommended is to provide the experiences and training that promote reading readiness. In addition, steps should be taken to overcome physical and emotional deficiencies that might interfere with progress."
- B. "The initial stage in learning to read, for pupils who have advanced normally. This stage usually occurs during the first grade. Among other attainments pupils acquire keen interest in learning to read and a thoughtful reading attitude. They learn to engage in continuous meaningful reading, read simple interesting material with keen interest and absorption in the content, and begin to read independently."

II. Objectives

- A. To stimulate interest in informal reading and looking at pictures
- B. To cultivate a thoughtful reading attitude
- C. To develop a small sight-vocabulary and the habit of recognizing these words quickly and accurately in thought units
- D. To develop good habits of recognizing and interpreting simple sentence units in both silent and oral reading
- E. To develop ability to follow directions for seatwork and to engage in other activities that apply ideas secured through reading
- F. To cultivate social attitudes desirable in a reading group
- G. To develop proper habits in the care and use of books

III. Procedure and Content

- A. The pre-reading period
 - 1. Preschool: It is only in recent years that educators have recognized the immense educational potentialities of the preschool period. During this time children are having experiences which are going to be the basis for much of their language usage later in school. Unfortunately, many children during the preschool period have had such meager social and language experiences that when they come to school the teacher has little foundation upon which to build. Teachers have, for the most part, assumed that

there is nothing that the school can do to correct this, and a preschool plan has been undertaken by but very few teachers.

In city schools where a teacher might expect to have thirty or more beginners in her first grade, the locating of these children in their homes and meeting parents to enlist their aid in a preschool program present serious difficulties. In smaller communities or in rural schools, there are greater possibilities for this and the teacher should by all means take advantage of them.

In Montana, a census is taken of preschool children and a teacher may secure from the county superintendent the names of all children who are four and five years old. If she can get the cooperation of the parents of these children in providing them with stimulating experiences, the work of the first grade can be made much easier for the teacher and much richer for the pupil. The experiences which the first grade teacher might reasonably expect of all children who appear on the first day of school come under several classifications.

α. Physical

- (1) The teacher has a right to expect that the child be six years old. Many children who are not six years old chronologically are more ready to undertake the work of the first grade than other children who are chronologically older than they. If the teacher has provided herself with devices which definitely measure this school readiness and has prepared herself to use them properly, she will be able to decide which of the five-year olds can be expected to fit into the program of the first grade. Such readiness-testing on the part of the teacher is fraught with many perils, however, unless she has the complete confidence of the parents in her community and has a definite understanding with them that the five-year old children they submit for school enrollment will be accepted or rejected purely upon the teacher's evaluation of the results of her observation and measurement. Very natural parental jealousies are aroused when one child is sent home to wait a year, or is assigned, if possible, to a kindergarten, while another who lives next door and is two weeks younger is permitted to come to school. Until such time as provisions can be made in a community for a definite preschool program the teacher will certainly be safer to follow the customary procedure and admit only those children who are six years of age.

- (2) The teacher has a right to expect that the child be able to see and to hear. The Maternal and Child Health Division of the State Board of Health sponsors, in many communities in Montana, Well-Child Conferences in which children up to school age are examined by local physicians or nurses. The teacher should have access to the findings of these conferences. Lacking such examinations, the teacher may discover pretty well for herself on the occasion of a "little-brother-and-sister" party any abnormalities of sight or hearing to which the attention of parents should be called. Games may be devised by the teacher to make these discoveries. For hearing, there can be whispered names or animal sounds, while the children keep their heads down on their desks. For sight, the teacher may have the children match animal pictures or geometric devices which are placed in the chalk tray of the blackboard, the children to sit at varying distances from the board. Similar devices to discover visual difficulties with materials close at hand may be found in primary work books. If neither a nurse nor a physician is available to test children for vision, a careful study of the directions on the pre-school Snellen Test will enable the teacher to make effective use of this device herself. These tests may be obtained from the State Board of Health, free.
 - (3) The teacher has a right to expect that the child be clean and free from disease
 - (4) The teacher has a right to expect that the child should have sufficient physical maturation to be able to take care of himself in most of the situations of the school-room. These should include putting on and taking off his clothes, eating and drinking, moving about in the room and on the playground, and caring for his toilet needs.
- b. Intellectual and emotional
- (1) The teacher has a right to expect that the child be of sufficient mental maturity that he may profit by the program of the school
 - (2) The teacher has a right to expect that the child has had experiences which have given him something to talk about
- Since the teacher knows the general subjects around which the language program of the first grade is to be built there is no reason why parents should not be urged to give their children experiences in these areas. A minimum list could be prepared for the parents of

the five-year olds so that they could be sure that their children were not starting to school with an experience handicap. Such a list would include:

(a) Animals

1. Play experiences with dogs, cats, turtles, frogs, and toads
2. A knowledge of horses, ponies, cows, pigs, chickens, and farm animals
3. Either first-hand or picture experience including the circus and its animals, the monkey, the elephant, the lion
4. Either first-hand experiences or stories told by hunters and trappers about Montana wild animals, bears, coyotes, muskrats, beavers, deer, elk, antelope

(b) Holidays

1. Halloween experiences
2. Experiences which lead to a happy understanding of Thanksgiving
3. Christmas experiences: toys, gifts, carols, church, home decorations, lighted windows, shopping, and Christmas trees which the children themselves may be able to help bring home and decorate

(c) School

1. Playing school with older children
2. Sunday school classes or other children's groups
3. Visits to school with older brothers or sisters for parties or programs
4. Hearing school children talk about school

(d) Home

1. Experiences with older children may result from visits with other children, particularly if a child has no brother or sister of his own
2. Making visits to and receiving visits from grandparents, aunts and uncles, cousins, other children
3. Playing house, or building toy houses
4. Seeing how farm animals are housed

(e) Nature

1. Experiences in a flower garden and in a vegetable garden
2. Experiences watching birds and identifying their songs

3. Experiences watching ants, insects, spiders, earthworms, frogs, and wild flowers
4. Experiences going fishing, gathering wild berries, digging potatoes, trapping gophers

c. Social

- (1) The teacher has a right to expect that the child can make adequate social adjustments
- (2) She has a right to expect that the child be neither too timid nor too boisterous to profit by the program of the school

2. In school

Even the child who comes to school with many experiences such as listed, may not be ready to undertake the job of learning to read which custom assigns to the first year of the elementary school. As a mental age of about six and one-half years seems best for beginning the reading program, there may be a considerable lapse between the period of the child's entering school and his arrival at this stage of mental maturation.

During the readiness period the teacher will attempt to continue the experience program which began in the home. She will attempt particularly to capitalize upon the child's language ability and will make use of devices which will stimulate him to talk and think in sentences. She will attempt to create in the child a keen desire to learn to read. She will attempt to develop enough readiness to read to make the child's first efforts in reading successful and enjoyable experiences, and to continue this preparation for readiness in terms of specific materials of wide variety, to be read at each level as the child reaches it. The teaching of reading will be an individual process and the teacher will attempt to provide different levels of instruction as the needs and abilities of her pupils demand.

From the very beginning, reading must have meaning for the child. It must be related to his daily needs in and out of school. The teacher's program must develop growth in acquiring a meaningful sight-vocabulary, in ease and freedom in the use of expressive words, and in proper enunciation and pronunciation. From the very first the child must realize the value that he is going to derive from reading and the pleasure that he is going to get out of it. Spontaneous questions and expressions of children become basic reading material in the first-year reading program. Real experiences present real problems which, in turn, require thinking in their solution and there is value in writing down the solutions.

For the first day of school, the teacher may arrange in advance for a child to bring his pet puppy to school. The children are encouraged to talk freely about the pet. They offer many suggestions and choices are made from the things they say to be written down on the blackboard as their story. When the teacher has written the story on the board she reads it aloud to see if it conveys the desired meaning. It may read something like this:

The puppy is white.

He can jump.

He can run.

He has a long tail.

This story may be printed on oak tag and illustrated with pictures cut out or made by the children. The next day this lesson may be reviewed and some boxes brought into the room to suggest the building of a house for the puppy. A new story might easily develop as:

The puppy needs a house.

We shall build a house for the puppy.

If a new interest develops in the meantime, it should have first attention and the story about the puppy should be brought up again when the children come back to it. The teacher must be familiar with the pre-primer and the primer vocabulary, and while developing her blackboard and chart stories she will introduce words that will be found later in the texts.

The simple stories of this type that develop in the group may be printed on the board or may be hand-printed on tagboard or newsprint. If the school has a "printing press" (ink pad and showcard lettering assembly), the story may be printed in real type. With the typewriter or duplicating device, individual copies of the "newspaper" may be made for each child. These may be assembled into a book, to become the child's first pre-primer, a pre-primer growing out of child experience.

The reading program which is basal in Montana, and many other reading programs have pre-primer charts in book form which introduce in highly-colored pictures the characters and experiences which will be recognized by the children when they are given the pre-primers. These devices have one disadvantage and one advantage in comparison with materials developed by the class themselves. The disadvantage is that the picture material, while interesting, does not come immediately from the child's experience, although the teacher finds little difficulty in establishing a relationship. The advantage is

that the material is very attractive to children, and the teacher does not need to concern herself with the matter of vocabulary, as the vocabulary of the picture and story book is cumulative and leads directly to the vocabulary of the books which are to be read later.

In addition to the part the children will have in making the charts, they will learn to print and read their own names and many words which can be used as labels for objects which the children recognize in the room. Many words may be acquired in this manner, such as names of articles of furniture or of clothing, titles for pictures and posters, titles of books, the names of the characters appearing on pictured charts or nursery rhymes, and the names on files or boxes in which articles are kept.

Rhymes or other committed material suggested by the children may be written on the blackboard by the teacher and read by the group. The teacher runs the pointer under each line while the children read. The teacher must never lose sight of the fact that the thing she is trying to teach is the recognition of individual words. While the words appear in sentences and may be so written and recognized, the word is of little use to the children until it can be isolated and carried over to other sentences and situations. For this reason the children "frame" the individual words with their hands, point to them, copy them on the board, match them with cards, cut up printed sentence-strips and follow many other of the teacher's devices to individualize the word.

Picture dictionaries, if available, lead to self-help in vocabulary building, or children can make their own. Written assignments, notices, instructions; lists of names of children who are to do certain tasks; lists of articles that children have volunteered to bring to school; records of work done; and other things written on the board with every opportunity, supply much of the natural procedure of building vocabulary. To fix this vocabulary the teacher and children will make practice material such as charts, word lists, and flash cards. These again have great appeal to the children because they represent their own experiences. Particularly from the vocabulary-building viewpoint, there is much in favor of using a basal reading program or series of readers. Where these are used the teacher must study the manuals that accompany the texts. These manuals are handbooks based upon the findings of research and experimentation in reading. They are books of very practical suggestions to help the teacher present each lesson.

B. The initial reading

There is no set way to teach reading. There is no definite series of steps which a teacher may take with the assurance that all pupils will grow in reading ability in the most efficient manner. With one child the best results may be obtained with a systematic program for developing basic reading skills, while with another, an informal program based upon the child's tastes and interests will be more effective. With all children, however, there are several objectives, to the achievement of which the teacher will direct her attention:

1. She will attempt to improve the mechanics of reading by developing
 - a. Auditory discrimination. This is the child's ability to recognize and distinguish sounds.
 - b. Visual discrimination. This is the child's ability to recognize and distinguish figures, shapes, letters, etc.
 - c. Ocular-motor control. This is the child's ability to increase eye span to secure speed in reading.
 - d. Association of the visual symbols with their meaning
 - e. Enunciation and pronunciation
2. She will attempt to improve the following abilities
 - a. Conceptual background. This is the child's total of experience, in the light of which he interprets the things he reads.
 - b. Vocabulary
 - c. Memory span of ideas
 - d. Understanding and use of sentences
 - e. Understanding of the organization of thought in more than one sentence
3. She will attempt to establish work habits which will aid the child in learning to read
4. She will attempt to correct factors which might hinder the child's progress
 - a. Personality traits such as timidity, stubbornness
 - b. Difficulties in hearing and vision
 - c. Low physical vigor
5. She will attempt to train the child in independence in word recognition. When a pupil is confronted by a word which he does not immediately recognize there are several courses he may follow to solve his difficulty:
 - a. He may ask the teacher or another child for help
If the child is reading orally and others are listening, or if he is reading rapidly for his own pleasure or to find out something and encounters an unknown word it is

better to tell him the word than to stop for word analysis and thus break the sequence of the story. If the child's reading is of the work-type material under teacher supervision, the teacher may decide whether to tell him the word or to stop and help him in an analysis of it. If the reading is definitely remedial, with the child reading orally to the teacher, and the object of the lesson is to build up independence in vocabulary and word recognition, the teacher will call to the child's attention the devices he has at hand for analysis which will permit him to recognize the word.

- b. He may get the word through the context in which it appears or through accompanying pictures or other relationships

In beginning reading new words are often introduced with pictures. It will not take the child long to discover that the new word which appears conspicuously in the subject of a circus story is "elephant," if an elephant dominates the illustration at the top of the page. The reader may get the word through context. In such sentences as:

(1) The boy opened his book and read a **(story)**.

(2) Mary spent her nickel in the **(store)**.

(3) The cat said ("**meow**"), but the dog said ("**bow-wow**"). The child's own reasoning will tell him what the unknown words are. This method, however, is not always sufficient, as the child can easily decide upon a wrong word. The teacher must recognize the value of context as an aid in word recognition and children must be definitely taught to seek in the context for a possible name for a symbol which is not recognizable in any other way.

- c. He may recognize the word through some characteristic of its form or from its general shape and size. Often the child assures his recognition of a new word by taking note of some characteristic of its shape. Automobile is easily recognized in the early reading stages because it is so long. Catch, dog, bump, and many others are readily learned on account of their shapes. Seeing the general shape of a word is an aid to the learner but obviously all words can not be mastered in this way.
- d. He may spell it out, whether orally or silently, and recall that a given series of letters is a certain word

Children who know the names of letters, particularly those children who have been taught to spell or who have made considerable use of letter-cards in building words, often attempt to spell out new words found in their reading. This effort doubtless has some value, but

it is a very slow process and some words, such as laugh, thought, and many others, cannot be mastered by spelling.

- e. He may break the word up into syllables which he does recognize

Such words as into, upon, without, and independent may often be recognized because they can be separated into syllables which the child already recognizes. The child who depends entirely upon this method, however, will discover that the recognition of many words such as syllables, toilet, and umbrella, is not greatly helped by breaking them into syllables as the syllables themselves are not recognizable.

- f. He may depend upon phonetic analysis. When presented properly, phonics serves to develop good speech habits and the ability to recognize words. There is much difference of opinion as to the value of instruction in phonics, and as to the best time to introduce it in the child's reading. There is evidence that children can learn to read well without ever having instruction in phonics, and there is much evidence of its very great usefulness. The answer to this apparent contradiction is possibly to be found in the realization of the fact that phonics is a tool to be used in recognizing words and not a method of teaching children to read. There are certain aspects of the teaching of phonics that are established by experience:

- (1) The ability to analyze words phonetically is a definite aid to pronunciation and recognition but it is only one of many such aids and should not be developed at the expense of the others. The teaching of phonics may be a time-consuming and even time-wasting process if it is done on the assumption that it is the only device which will contribute to a child's recognition of words.

- (2) Phonetic analysis of words is a very formal procedure, and one which does not arouse much enthusiasm in the beginning reader. It should be introduced only after the child has acquired a beginning reading vocabulary and feels that he is actually reading. It is difficult to say just when this assurance will be felt by the child. The need for phonics probably comes when children themselves begin to notice phonetic similarities in words with which they are familiar and this would vary with individuals. The discussion of the use of phonetic analysis is introduced in this

"initial period of reading instruction" because for some children it will have definite value during this period. Its widest use, however, will come in later grades, and the ability to analyze words phonetically will be valuable to readers on all subsequent reading levels.

- (3) Training in phonics should occur outside of regular reading periods, although the motivation comes from discoveries made by the child in the reading periods that he needs additional tools to help him in his recognition of words.
- (4) The first approach to instruction in phonics should be made through training the voice and the ear to speak and hear sounds correctly. Phonics may be introduced through many play activities, such as:
 - (a) Sounds made by animals, engines, automobiles
 - (b) Rhyme words such as:

Jack and Jill
Went up the.....
Tick tock
Goes the.....
 - (c) Finding the same initial sounds in names of objects and people: Sally, see-saw, swing; or doll, dog, Daniel. Much of this type of drill may be given to the initial "s" sound since a great many English words begin thus.
 - (d) Hearing similar sounds in the endings of words: s, es, ing, ed, y
 - (e) "Certain types of intensive and formal phonetic practices should be avoided. For example, it is futile to try to teach beginning pupils to give exactly all the forty or more letter sounds. Children need early only the more obvious and frequent letter sounds. To insist on their sounding out all words fully and definitely is a great error." As a result of much investigation we now know the exact relative importance of phonograms and initial consonant combinations. We also know the order in which other needs of children will develop in their effort to recognize sounds. A basic phonic program should, therefore, follow this order:
 - ((1)) Learn all short vowel sounds
 - ((2)) Learn all simple consonant sounds
 - ((3)) Learn the rule for the lengthened vowel before final "e"

((4)) Learn the phonograms and letter groups, and the consonant combinations in the order of their use and importance. The following tables* indicate this order:

((a)) Consonant combinations in the order of their importance are: st, th, sh, gr, br, dr, wh, pl, fl, sp, ch, bl, sw, tr, cr, cl, sl, sn, sm, tw

((b)) The fifty most important phonograms in the order of their importance are: (1) "sum of final 'e' (meaning sum of all phonograms in which initial vowel is lengthened by final silent 'e'); (2) sum of 'ee'; (3) ed (ending); (4) ing (ending); (5) er (ending); (6) sum of ea (eat); (7) sum of an; (8) sum of ou (our); (9) sum of en; (10) ay; (11) sum of oo (good); (12) an; (13) sum of oo (moon); (14) sum of ar; (15) ing (ring); (16) sum of ow (cow); (17) sum of ow (show); (18) ill; (19) sum of at and atch; (20) sum of it; (21) sum of in; (22) y (cry); (23) at; (24) sum of ai; (25) en (ending); (26) ee; (27) sum of ea (bread); (28) all; (29) ick; (30) ake; (36) op; (37) un; (38) sum of ir; (39) ight; (40) old; (41) oi; (42) sum of oa; (43) ap; (44) and; (45) ock; (46) ail; (47) ed; (48) on (apron); (49) ain; (50) or (parlor)."

Most children who have been in school a year are ready to start the third period of their reading: the period of rapid progress. Their abilities in phonics should include ((1)), ((2)), and ((3)) above, the first four of the consonant combinations, and about twenty-two of the fifty most important phonograms.

IV. Desirable Outcomes of Instruction on the Preschool and First-Grade Levels

A. The readiness or pre-primer period. The end of this period for a normal child might reasonably be expected to come somewhere between the third and the ninth weeks of the first grade. Many children will require a longer time. The child who is ready to undertake the learning-to-read period:

1. Is vitally interested in posters, signs, notices, bulletins, and written instructions, and manifests curiosity about them

*McKee, Paul, *Reading and Literature in the Elementary School*. Houghton Mifflin Company, Chicago, 1934

2. Has some appreciation of the value of reading for information and reading for fun
 3. Shows eager interest in books and enjoys illustrations
 4. Assimilates the content read, as indicated by reaction to such items as elements of surprise, humor, and conversation
 5. Reads simple sentences silently before reading them aloud
 6. Carries out, unaided, directions from blackboard, chart, or workbook
 7. Reproduces, in sequence, main incidents of the stories that he hears
 8. Handles books with care
 9. Manifests good habits in reading from left to right
 10. Cooperates with the group and contributes to the progress of its members
- B. The initial period of learning to read. The end of this period for a normal child usually comes at the end of the first grade. The child who is ready to undertake the program of the third period of "rapid progress:"
1. Becomes absorbed in the contents of interesting selections and books while reading independently
 2. Reads silently with few or no lip movements
 3. Asks questions about and discusses intelligently the content of what is read
 4. Reads increasingly longer units for pleasure or in response to a specific purpose
 5. Reads aloud, clearly, and in thought units, rather than by individual words
 6. Uses various aids independently in recognizing unknown words
 7. Recognizes and interprets the significance of certain typographical devices such as period, question mark, and quotation marks
 8. Handles book with care, opens and turns pages properly, knows the order of paging, and is able to find readily what he is looking for
 9. Attains a grade score of 2.0 on standardized silent-reading tests

V. Bibliography

(See also Bibliography in the General Suggestions)

A. Books

Dunklin, H. T., *Prevention of Failure in First Grade Reading by Means of Adjusted Instruction*. Teachers' College, Columbia University, New York City, 1940

B. Commercial Seatwork

Practically all the publishers of the reading series shown in the bibliography on page 123, publish workbooks to accompany their sets of readers. As this material is constantly changing, the teacher should write to these companies asking to be put on their mailing lists. The following are also publishers of primary seatwork:

The Teachers' Cooperative Center Store, 432 Sutter St., San Francisco

F. A. Owen Publishing Co., Danville, New York

Mother Goose Puzzle Cards, Noble and Noble, Publishers, New York

American Education Press, Inc., 40 S. Third St., Columbus, Ohio

Newson & Company, 623 So. Wabash Avenue, Chicago

The Harter School Supply Co., Cleveland, Ohio

GRADES TWO AND THREE

I. Introductory Statement

This is the stage of rapid progress in fundamental reading attitudes and habits. It is characterized by rapid growth in reading interests and by notable progress in accuracy of comprehension, depth of interpretation, independence in word recognition, fluency in oral reading, and increased speed in silent reading. By the end of this stage of development pupils should read silently more rapidly than orally, and should be able to read with reasonable ease, understanding, and pleasure, both informational and literary materials such as are usually assigned early in the fourth grade. Pupils at the end of this period should score 4.0 in standardized silent reading tests.

II. Objectives

- A. To provide a rich variety of reading experiences based on the world's greatest stories for children and on informational materials that challenge interest, including topics relating to various curricular fields
- B. To stimulate keen interest in reading wholesome books and selections for pleasure and to establish the habit of reading independently
- C. To secure rapid progress in the development of habits of intelligent interpretation when reading for a variety of purposes
- D. To increase the speed with which passages are read silently within the limits of accurate comprehension. This includes rapid increase in span and rate of recognition and a corresponding decrease in number and duration of eye-fixations per line in both oral and silent reading.
- E. To provide for the development of desirable standards and habits involved in good oral reading
- F. To promote continuous development in accuracy and independence in word recognition
- G. To continue training in the skillful use of books and to familiarize pupils with the privileges and opportunities of libraries

III. Textbooks

Far Away Parts, Enchanting Stories of the Easy Growth in Reading Series. Hildreth and others

IV. Procedures and Content

The basic reading skills should have been acquired during the second stage of reading development. This third stage of reading instruction should be devoted to making these skills automatic as well as to establishing an enthusiasm for reading. The pupils who enter this period will vary in reading ability, in ability to analyze new words, in mastery of sight-vocabulary, and in ability to read for meaning. For this reason, the work in this period must be thoroughly planned for adaptation to individual needs. All the types of activities for motivating reading and for enriching vocabulary used in the first grade will need to be continued and many new ones must be added.

A. Reading materials

Informative materials, prose, verse, and work and play-types of materials will provide training in the mechanical skills essential to rapid, accurate, and full comprehension. It is during this period that ability to cope with problems develops and becomes permanent, and the child achieves independence in his reading. To achieve independence, the child reads directions from the bulletin board, a school newspaper, easy story books, booklets made by other children, advertising in magazines and store windows, roadside signs, and everything in the nature of printed matter that comes to his attention. The teacher may have several sets of easy readers; or she may obtain a greater variety by purchasing one or two books of each of many second or third graders. Many children in these grades will require very simple material and so some readers of first grade level should also be available. These should not have "First Grade" printed on them as this destroys the child's pride and pleasure in reading.

B. Inventory of individual reading abilities

As time permits, the teacher should measure the abilities of the children, using such devices as are suggested in the introduction to the subject reading (pp. 117-122). The evaluation should be in the nature of a general inventory and should not depend upon the measurement of only one aspect of reading.

C. Correcting weaknesses

1. Vocabulary

It is recommended that the teacher use a basic reading program to develop the child's vocabulary. The advantages of following such a plan are found in the fact that the vocabulary of a series of readers is scientifically cumulative. The child is meeting many words he already knows, and new words at a rate which permits of the acquisition of the neces-

sary vocabulary without destroying the child's interest in his reading. There are also available: teachers' manuals, sentence and word cards, and picture material, which contribute directly to the reading program. There is very great value in the help which a teacher may get from the manuals which publishers provide for their reading materials. The use of these manuals assures that the teacher will get out of the reading program everything the writers and publishers attempted to put in it. If the teacher is unable to secure the sentence cards and phrase cards which accompany the basic series she is using she should make cards, using tagboard or cardboard, devices which are very valuable in developing vocabulary.

2. Word recognition

Children who indicate that they lack independent means of recognizing words need drill in the devices which lead to this skill. Chief of these devices is phonics. Children in the second grade will require review of the phonetic elements which they acquired in the first grade (pp. 135-136) and they must acquire further ability in the use of phonics. The teacher will find great help in planning drills in phonics in the teacher's manual which accompanies her basic reader.

The phonetic elements to be taught are:

a. For the second grade

- (1) Long vowel sounds
- (2) Double consonants: br, dr, wh, pl, fl, sp, ch, sh, bl, tr, cr, cl, sn, sm, sw, tw
- (3) Phonograms: al, at, it, et, ai, (wait, air) ail, an, and, all, ent, ide, in, un
- (4) Silent letters: k before n—know; g before n—gnaw; w before r—write; b after m—lamb; gh after i—sigh
- (5) The three sounds of ed: as in pasted, washed, filled
- (6) The alphabet: Before the end of this grade the child should learn to give the alphabet in order. An alphabet song is helpful in memorizing the alphabet. The child should have continued practice in learning relative locations of letters in the alphabet.

b. For the third grade

- (1) Vowel equivalents: a, ai, ay, ey, ei (eight); o, ow; ou, au, aw; oi, oy; e, ee, ea, ei, ie; u, ew, ui (suit)
- (2) Consonant combinations: gh and ph usually have the sounds of **f**
- (3) Much drill on final consonants and blending

3. Comprehension

When the teacher has discovered that certain children need help in comprehending what they read, there are many drills she may use to improve individual abilities

- a. Reading to find specific answers to factual questions
- b. Reading directions written on the board or printed on cards
 - (1) For seat work
 - (2) For any room activity
 - (3) For finding objects
 - (4) For playing games
- c. Matching rhymes and pictures

4. Speed

Drills for increasing the reading rate in both silent and oral reading appear in the teachers' manuals to accompany most series of readers. These drills make use of flash cards showing words, phrases, and clauses, and require motivation to show the pupil that he is reading too slowly.

5. Remembering what has been read. To develop this ability the teacher should make use of:

- a. Oral reproduction of stories which have been read silently
- b. Dramatizing
- c. Answering a set of questions about a story after it has been studied
- d. Discussing a story with other members of the class
- e. Rereading a story after an interval of a day or a week
- f. Locating sentences which the teacher has written on the board by telling what story or what part of a story they have come from
- g. Reviewing stories occasionally by naming the characters and telling what they did, and by comparing with stories read at other times
- h. Using content material as basis for class discussion and to answer questions
- i. Reading, silently, rules for games so children may play them at recess
- j. Reading silently for a specified time and answering questions asked by the teacher, or reproducing what was read. The teacher may call first on the poor, then the average, and lastly on the good readers. (This order is necessary so that each can have something to contribute. If the best readers were asked questions they

would probably answer so well that there would be little for the poorer ones to add.)

- k. Reading to answer factual questions as "How many animals in the story?"

V. Measuring Results

The teacher should use frequent informal tests to maintain her "inventory" of the abilities of the individual members of her group. pp. 117-122.) She should measure her pupils frequently by standardized tests. A score of 4.0 in silent reading is a needed attainment for pupils at the end of the third grade.

VI. Attainments*

- A. Pupils have established the habit of reading independently
- B. They interpret accurately the materials related to other curricular fields
- C. They seek reading materials that relate to activities in which they are interested
- D. They read more rapidly silently than orally
- E. They are able to read at sight materials suited to their stage of development
- F. They show increasing skill in combining contextual clues with visual and auditory elements in recognizing unfamiliar words
- G. They show increased ability to make the adjustments required when reading for different purposes
- H. They exhibit rapid progress in acquiring wholesome and diversified reading interests

VII. Bibliography

- Dolch, E. W., Teaching Primary Reading. Garrard Press, Champaign, Illinois, 1941
- Gates, A. I., New Methods in Primary Reading. The Macmillan Company, New York, 1927
- Hildreth, G. H., and Wright, J. L., Helping Children to Read. Teachers' College, Columbia University, New York, 1940
- Moore, Annie E., The Primary School. Houghton Mifflin Company, Boston, 1925
- Stone, C. R., Better Primary Reading. Webster Publishing Company, St. Louis, 1936

*(Adapted from Thirty-sixth Yearbook.)

INTERMEDIATE GRADES

I. Introductory Statement

"This is the stage of reading at which experience is extended rapidly and increased power, efficiency, and excellence in reading are acquired. This stage is characterized by wide reading that extends and enriches the experiences of the reader and broadens his vision. The chief purposes of the guidance provided are to promote greater power in comprehension and interpretation, greater efficiency in rate of reading and in reading for different purposes, improvement in the quality of oral reading, the extension of the pupil's interests, the elevation of reading tastes, and greater skill in the use of books and other printed sources of information." (Thirty-sixth Yearbook)

II. Objectives

- A. To extend and enrich the experiences of pupils through wide reading in the various fields in which pupils are and should be interested at this stage of their development
- B. To broaden and elevate reading interests and tastes and to establish the habit of reading regularly for recreation and pleasure
- C. To promote the development of increased power and efficiency in various important phases of reading. This includes rapid growth in recognition and meaning vocabularies, in accurate comprehension of increasingly difficult materials, in breadth and depth of interpretation, in speed of silent reading, and in quality of oral reading.
- D. To stimulate, in conjunction with work in the various subjects, the development of attitudes and habits that enable pupils to engage effectively in different study activities that require reading
- E. To make continuous studies of the attainments and needs of pupils in reading and to provide necessary corrective and remedial instruction

III. Procedures

- A. Extending and enriching experiences

- 1. Providing experiences

The children who enter upon this period of reading with a grade score of 4.0 or better on standardized silent reading tests are apt to be avid searchers for "something to read." It would be very unfortunate if their interest were deadened by the confinement of their reading to assigned pages of a fourth reader, and textbooks in history, geography, health, and other subjects. It is the responsibility of the teacher to provide experiences which will lead these

children into wide and varied fields of reading. Suggestions for sources of reading materials might include:

- a. Stories of travel and of people who live in distant places
- b. Biographies: stories of people who have done interesting things
- c. Stories of people of all social classes and of all ages
- d. Stories of current happenings, and new stories
- e. Articles within the fourth grade vocabulary of the "How to make it" type
- f. Stories of outdoors: nature stories, science, hunting and fishing
- g. Stories of sports and games; health articles
- h. Pictured articles on world affairs
- i. Advertising matter in newspapers, magazines, and shop windows
- j. Instructions, memoranda, written assignments, bulletin board announcements
- k. Letters from friends, relatives, or club acquaintances
- l. Records of activities, minutes of meetings, summaries
- m. Book reports in juvenile magazines covering interesting books
- n. Roadside signs, historic markers, billboards
- o. Travel advertising; timetables; bus, train, and airplane folders
- p. Hobby magazines such as those dealing with stamps, electric motors, radio, model airplanes, Boy Scouts and Girl Scouts, and science
- q. Humorous stories and anecdotes, comic strips
- r. Puzzles, tricks, stunts, contest announcements and rules, amateur photography
- s. Bible stories, church bulletins, Sunday School papers
- t. Government bulletins dealing with such subjects as clubs, agriculture, forests
- u. Explanations, original compositions, or units of work completed by other pupils
- v. Catalogs of mail-order houses, seed firms, implement distributors
- w. Poetry

It is the responsibility of the teacher, with the help of the pupils to assemble quantities of reading matter, to locate sources of free and inexpensive materials, and, if possible, to establish library connections so that books may be bor-

rowed. A definite program of interchange of privately owned books should be worked out among pupils, and all local sources of reading material must be explored. There are many stories which children will read over and over again with little apparent loss of interest, but such rereading of any material or evidences of pupils browsing through reading shelves without apparently finding anything interesting should immediately suggest to the teacher that it is time to tap some new sources of interesting reading.

2. Guiding the pupils interests

The availability of quantities of varied reading material, and evidences that it is being read, do not excuse the teacher from responsibility for guidance in a child's reading program. After a pupil has begun to find pleasure in reading and to show initiative in finding and choosing things to read, the teacher must see that there is some system to his reading, and that part of his efforts are directed to "finding out" and not all to recreation. The chief purposes of the guidance provided are:

- a. To promote greater efficiency in reading for different purposes
- b. To extend the pupil's interests and elevate his reading tastes
- c. To promote skill in finding and using books and other printed material
- d. To promote greater power in comprehension and interpretation
- e. To promote greater efficiency in the rate of reading
- f. To promote improvement in the quality of oral reading

B. Stimulating interest in reading

The providing of interesting and attractive reading material for children in the intermediate grades serves another purpose besides extending and enriching their experiences. It serves also to stimulate further interest in reading. It is in these grades that interests develop which determine to a large extent the future reading activities of the pupils. Other means that serve to stimulate interest are:

1. Let reading serve the present interests of the children
2. Plan interesting discussions and explanations that will increase the children's interest
3. Let carefully directed questioning disclose lines of interest
4. Provide pictures and illustrative material

5. Set problems which will require reading if they are to be solved
6. Play games of guessing content from knowing the title, and read to verify
7. Let the reading lead into other interesting channels such as music, artistic creation, or physical activity

C. Training pupils to read for definite purposes

1. Reading for recreation
2. Reading to find out

Systematic practice will develop this ability. The teacher asks the pupils to read a given selection to discover the answers to questions. When the pupils indicate they have found the information, one is allowed to tell what he has discovered and the others either verify or criticize his findings. The procedure may be varied by stating a fact and having the pupils read to discover if it is true.

3. Reading to follow directions

D. Developing vocabulary (See vocabulary suggestions in other grades and suggestions on use of the dictionary)

1. Studying and using synonyms and antonyms
2. Adopting words that have unique personal appeal to pupils
3. Extending definitions of words by using them in sentences
4. Finding interesting and unusual uses for words
5. Reading stories of writers who make good use of words
6. Developing an appreciation of a wide vocabulary as a sign of an intelligent, educated person
7. Using prefixes and suffixes

F. Reading to increase speed*

The pupils should be measured as to reading speed at a time when they are not aware they are being timed and without being urged to "read as fast as they can." It may take several such tests to show the teacher which pupils need practice to increase reading speed. Sometimes, just letting pupils know that they are reading too slowly will serve to increase their speed, but sometimes definite drills must be used to secure improvement. Comprehension is more important than speed, but in many cases increasing speed will improve comprehension.

G. Reading to improve oral performance (See discussion of oral and silent reading in the Introduction, pp. 113-117.)

A strong motive for oral reading may result in improvement. The reader has an audience and reads to give his hearers pleasure or information. For either of these purposes the material should first be read silently. Hearing good oral read-

*See Table of Vocabularies and Speeds, page 44.

ing may serve to improve a poor reader. Group or choral reading practice invariably helps a pupil who is not a good oral reader.

H. Acquiring abilities needed in locating information by use of:

1. The index and table of contents
2. Bibliographies
3. Library and card files
4. The dictionary and encyclopedia
5. Maps, globes, charts, and atlases
6. Directories or alphabetical catalogs
7. Paragraph, marginal, and sectional headings
8. Outlines and summaries

IV. Measuring Results

Test silent and oral reading speed with a stopwatch. (See tables page 44.) Use standardized tests (list, page 124) for comparison with definitely established grade norms.

V. Attainments of Children Who Have Completed This Reading Period

- A. They are familiar, through reading, with numerous aspects of human activity
- B. They have acquired strong motives for and keen interest in reading for information and pleasure, and devote time regularly to recreational reading
- C. They are able to recognize and pronounce new words independently or to find them quickly in the dictionary
- D. They have reached approximate maturity in rate and span of recognition, in rhythmical progress of perceptions along the lines, in eye-voice span in oral reading, and in speed of silent reading for recreational purposes
- E. They have greatly expanded their meaning vocabularies and have mastered various aids in deriving the meaning of words, including the intelligent use of the dictionary
- F. They have increased their power of comprehension and interpretation to the point where they are able to make a grade score of 7.0 in silent reading
- G. They have made rapid progress in acquiring independence and efficiency in a wide range of study situations that involve reading
- H. They are able to use economically and skillfully books, dictionaries, encyclopedias, and other sources of information that are needed in their reading and study activities

VI. Bibliography

- Gans, R., Study of Critical Reading Comprehension in the Intermediate Grades. Teachers' College, Columbia University, New York City, 1940
- Lee, D. M., Importance of Reading for Achievement in Grades Four, Five, and Six. Teachers' College, Columbia University, New York City, 1933

GRADES SEVEN AND EIGHT

I. Introduction

This is the stage at which reading interests, habits, and tastes are refined. The fifth stage of development begins as a rule during the junior high school period. The chief purposes of guidance in reading during these years are to promote the further development and refinement of the attitudes and habits involved in various types of reading, to broaden interests and elevate tastes in reading, to develop increased efficiency in the use of books, libraries, and sources of information, and to secure a high level of efficiency in all study activities that involve reading.

II. Objectives

- A. To extend further the experiences of the pupil through reading and to increase greatly his intellectual apprehension
- B. To extend and refine reading interests and tastes that will direct and inspire the present and future life of the reader and provide for the wholesome use of leisure time. This use might lead him:
 1. To keep informed concerning current events: through reading news items, editorial comments, and book and play reviews in the daily newspaper or weekly periodicals
 2. To learn more about events or questions of special interest, by following the comments and predictions on the sports page or the articles in professional journals
 3. To broaden his range of information, through cursory reading of articles in weekly and monthly periodicals or browsing in books
- C. To promote vigorously the further development of the habits involved in gaining an intelligent grasp of the author's meaning, in reading for different purposes, and in making keen critical interpretations of what is read
- D. To develop a high degree of skill and efficiency in study activities, including the use of books, libraries, and other sources of information, and to extend and refine habits involved in locating, collecting, and summarizing printed materials
- E. To improve and refine habits involved in good oral interpretation, particularly of informational, literary, and dramatic selections, and in connection with public and class activities that require reading to others
- F. To provide corrective and remedial instruction in the fundamental habits involved in oral and silent reading whenever the need for it exists

III. Procedures

If we consider that both silent and oral reading have uses for recreation and for work, we find four different programs of general instruction. These four types have been in use in earlier grades, but on this reading level their recognition should be stressed.

A. The work-type of silent reading

By this is meant reading silently for informational purposes. Since one of the objectives of this period is to equip the child with the ability to obtain and understand information found in printed material, this type of reading has a large place in the reading program of these grades. McKee* gives five distinct abilities which are necessary under this head:

1. The ability to comprehend material read
2. The ability to locate information
3. The ability to select and evaluate material read
4. The ability to organize material read
5. The ability to decide what part of the material read should be remembered and how to remember it

Training in these abilities should take place continuously throughout this period of reading and the measure of this training is the effectiveness of the child's reading. Exercises in vocabulary building, improvement of eye movements, development of comprehension and speed in reading, and other skills which received drill in earlier grades must be continued for those individuals who need them. The materials used for this type of reading should be factual in content; it is easier to use and easier to measure comprehension in this type of material. Many different books and magazines should be available to make possible much wide and easy reading. The atlas, yearbooks, dictionaries and encyclopedias will be needed for use in teaching children to locate information.

A testing program in connection with the work type of silent reading would show first, by preliminary testing, what pupil difficulties exist. Intermittent tests show progress or lack of progress, and a final test measures accomplishment at the end of the activity.

- B. While not as effective as silent reading in the affairs of life, oral reading must be taught in order to prepare children for certain activities which demand it. Work-type oral reading is concerned chiefly with training children to read aloud and it involves the development of definite skills and attitudes:

*McKee, Paul, *Reading and Literature in the Elementary School*.

1. The ability to find and select appropriate material
2. The ability to understand what is read
3. The ability to pronounce words correctly and to enunciate clearly
4. The ability to maintain proper posture while reading orally, and to avoid mannerisms
5. The ability to achieve a proper and pleasing attitude toward the audience
6. The ability to read with a pleasing voice
7. The ability to convey the author's meaning

Standards for good oral reading must be established by the pupils and provision made for practice lessons. The reading should be done with a definite purpose, as one lesson might deal with attempts to improve the reading voice, and another to help enunciation. Criticism should always consist of helpful suggestions for improvement. The practice must be continued as long as it is needed.

Some situations in which this type of reading finds use in life are:

- a. Reading minutes of a meeting to members of a group
- b. Reading a report, reading from references or informational matter
- c. Reading literary material to stimulate audience appreciation

C. Recreational type of oral reading

Instruction in this type of reading has for its aim reading aloud to provide recreation for others. Drill methods will not be used as widely since one reads in this situation strictly for enjoyment. The skills and abilities to be developed are the same as for work-type oral reading. Literature read for enjoyment is not to be analyzed since this spoils the reliving of the selection. In the study of poetry, the reading must make the poem so real and so pleasant that the listeners will enjoy it, and possibly want to memorize it.

D. Recreational type of silent reading

Instruction in this type of silent reading is given to the end that the pupil may engage successfully in those reading activities in which one reads silently for recreational purposes. It takes up a large share of one's reading time because of its extensive social use, and it frequently has a definite time in the daily program of the school.

Reading material must be used which will effectively build permanent interests and appreciations for literature. The bulletin board may be used to call attention to good things

to read. Children should be encouraged to tell about new books so that others will wish to read them. The purpose of teaching literature is to give the child the means of extending his horizon and enriching his experiences. The child must feel, enjoy, and live happenings offered in the selection he reads. Literature serves thus as a means of securing vicarious experiences and when the child lives these experiences, he develops a desire to continue such reading. There are several criteria which determine the selection of material for this type of reading.*

1. "The prose and poetry material must be within the child's experience
2. The material must be within the child's comprehension
3. The program must introduce a wide variety of material
4. Many of the selections should be modern"

IV. Measuring Results and Remedying Difficulties

A. Measuring results

The purpose in considering reading in these grades under the four headings just proposed is to permit the teacher to make better use of measures of pupil progress. It is obviously easier to measure one skill than many, and reading is a combination of many skills. In any measurement, the teacher must know what she is measuring, and use the instrument which gives her a true evaluation of that particular skill, ability, or attitude. Informal testing is a daily process in reading, but the use of more definite and formal devices is needed at certain intervals to establish objectively the degree of correctness of the opinion the teacher has formed as a result of her informal tests.

The use of standardized tests is recommended. The teacher must familiarize herself with the types of tests available so that she may choose the implement that is going to measure reliably and validly the thing she desires to measure. Achievement tests which include reading in a measurement of several subjects are listed on page 124.

B. Remedies for reading difficulties

When diagnostic tests have shown that a child has certain reading difficulties, it is the responsibility of the teacher to remedy those shortcomings in so far as she possibly can. Remedial reading has already been briefly discussed in the Introduction and a complete discussion of it cannot be in-

(*Quoted from Paul McKee)

cluded in a brief course of study. The 1931 Montana Elementary Course of Study includes a chart of reading difficulties and suggested remedies to which many Montana teachers still have access. Similar charts may be found in works on the subject of remedial reading; or teachers, by recording practices which they find effective, may build up charts of their own.

There are several requirements for teachers who desire to undertake a more or less comprehensive program of remedying reading difficulties

1. They must know the materials and methods suited to ordinary classroom work
2. They must know the methods of mental and educational measurements
3. They must know how to diagnose difficulties, and they must know what remedies to apply
4. They must have some familiarity with ordinary tests of vision, hearing, and other motor functions

The classroom teacher is not expected to be an expert or to diagnose extreme cases. She must be familiar, however, with symptoms and causes of difficulties so that she may apply the necessary remedies to the cases which are her responsibility. In the Bibliography (page 122) there are listed books which explain remedial methods in a degree which cannot be undertaken in a course of this sort.

V. Bibliography

Stone, C. R., *Better Advanced Reading*. Webster Publishing Company, St. Louis, 1937

COURSE OF STUDY IN HANDWRITING

General Suggestions

I. Introduction

Writing is a skill; it is also a means of expressing thought and meaning. Since human beings have a great need to communicate to others who are at a distance and to preserve ideas in written form, it is only natural that people should begin to learn to write early in life. Writing has so many uses in adult life, as well as in school, that it has long been considered one of the fundamental school subjects. Since writing is a tool of expression, the writing itself must become a voluntary movement with the muscular coordination highly developed so that the entire attention of the writer may be placed upon the thought to be expressed.

II. Objectives

- A. To enable pupils to develop sufficient skill to write easily, legibly, and rapidly enough to meet their needs
- B. To equip children with methods of writing so that they may attack writing problems intelligently
- C. To diagnose and correct individual writing difficulties
- D. To provide experiences that will tend to develop in children more power to direct their own practice and more ability to judge whether or not they are succeeding in that practice
- E. To develop a social urge to use the skill attained in all writing situations in and out of school

III. Textbooks

Writing Lessons for Primary Grades—Palmer
Palmer Method Handwriting—Grades Three and Four
Palmer Method Handwriting—Grades Five and Six
Palmer Method of Business Writing—Grades Seven and Eight
Teachers' Manuals

IV. Procedure

A good program in writing will provide meaningful practice exercises through which the child will acquire skill in the movements necessary to form letters, to increase writing speed, and to correct difficulties that are discovered. In order to teach handwriting successfully, a teacher must have as much knowledge of the subject, as much skill, and as thorough preparation as she needs for other school subjects.

Since the act of writing is a very complex exercise involving the use of many muscles and considerable nervous tissue, it is logical to assume that a great amount of meaningful practice is necessary to obtain a high degree of perfection.

A. Writing models

Children should have model forms for both the capitals and small letters set before them so that they can study the forms of the letters, spacing, uniformity of slant, and alignment. The teacher's own writing should be worthy of use in giving an efficient blackboard or desk demonstration.

B. Left-handedness

There are several conflicting theories regarding left-handedness. The evidence is not clear-cut. The best current opinion seems to be that most children are born ambidextrous and that they learn left-handedness or right-handedness at a very early age. Any child's left-handedness may be changed to right-handedness if proper methods are used. Any method is good which persuades, induces, or motivates the child to change over willingly. Any method which uses coercion, force, or unpleasantness in any form is almost sure to cause personality distortion or behavior defects. After the fifth grade no effort should be made to get a child to change handedness.

C. Motivation

The child's writing practice should be based on something that he really likes to do. He has a desire to express his own thoughts and experiences and it is the duty of the teacher to further that desire. The child's observation of his own progress is the best motivation.

D. Position

1. At the blackboard: stand well back, facing the blackboard squarely with the feet slightly apart
2. At the seat: sit well back in the seat with the feet flat on the floor. Face the desk squarely and bend from the hips. Rest both forearms on the desk.
3. Placing the paper: place lower edge of the paper so that it forms an angle of about thirty degrees with the edge of the desk. It should be slightly to the right of the center of the desk.

E. Movement

1. The child should hold the chalk and pencil correctly. The beginner's writing should be large in conformity with his immaturity of muscular control.

2. The pencil should be held loosely between the thumb and the first and second fingers. The hand glides on the nails of the third and fourth fingers. The movement in writing is a combination of the arm and fingers.

F. Speed

Speed is not stressed at first; instead, emphasis is put on letter forms and movement. After these are mastered the child should develop the speed expected at his grade level.

G. Manuscript writing

The prevailing practice in many public schools is to use manuscript writing in the first two or three grades. The transition to cursive writing is made gradually at the end of the second year or during the third year. It was formerly believed that this transition presented a major problem at this time, but more recent studies have discovered that the transition does not present a serious difficulty.

The relative merits of manuscript writing are

1. The beginners are saved the effort of learning a second alphabet, because it is similar to type forms; therefore, it is easier to learn
2. It is less tiring to write, especially for young children
3. It is helpful in reading and spelling, since with the manuscript letters, writing, and reading supplement each other

The principal claim against it is that it is slower

V. Measuring Results

Children should be encouraged to keep their written work. These papers, if dated, may be compared with later work so that the writers can see their own progress.

There are several standard scales by means of which writing may be measured

- A. Ayres, L. P., *Measuring Scale for Handwriting*. Public School Publishing Company, Bloomington, Illinois
- B. Freeman, F. N., *Chart for Diagnosing Faults in Handwriting*. Houghton Mifflin Company, Boston, Mass.
- C. *New York City Penmanship Scale*. The Macmillan Company, New York
- D. Pressey, S. L., and Pressey, L. C., *Pressey Chart for Diagnosis of Illegibilities in Handwriting*. Public School Publishing Company, Bloomington, Illinois

- E. Thorndike, E. L., Thorndike's Scale for Handwriting of Children. Bureau of Publications, Teachers College, Columbia University, New York
- F. West, P. V., American Handwriting Scale. A. N. Palmer Company, New York
- G. West, P. V., West Chart for Diagnosing Elements of Handwriting. Public School Publishing Company, Bloomington, Illinois
- H. Freeman, Frank N. and Dougherty, M. L., How to Teach Handwriting, Charts for diagnosing faults in handwriting. Houghton Mifflin Company, Boston

VI. Bibliography

- A. Brueckner, Leo J., and Melby, Ernest, Diagnostic and Remedial Teaching. Houghton Mifflin, Boston, 1931
- B. Conrad, Edith, Trends in Manuscript Writing. Teachers' College, Columbia University, New York, 1936
- C. Freeman, F. N., Primary Handwriting from the Classroom Teacher. Vol. V Classroom Teacher, Chicago
- D. Freeman, F. N., Handwriting from the Third Yearbook. Department of Superintendents, National Educational Association, Washington, D. C.

GRADES ONE AND TWO

I. Objectives

- A. To develop good form in writing the letters of familiar words used in reading and language
- B. To develop ease in movement, and correct position
- C. To develop a speed of twenty-five to thirty letters a minute (see Table of Vocabularies and Speeds, page 44)
- D. To correlate writing with other subjects

II. Procedure

The child's first writing should be done on the blackboard where he can use the free arm movement and where he does not require close eye-work. The copy should be on lines upon the level of the child's eyes. The teacher must demonstrate the correct way to write the letters in a word.

Writing on paper with a large pencil should be begun during the latter half of the first year. At first, this writing should be on a large sheet of ruled paper. First-grade writing must be supervised to avoid the formation of wrong habits.

III. Achievements

- A. Ability to write the child's name correctly and easily
- B. Ability to write the words and short sentences needed at this grade level
- C. Ability to write the numbers to 10 in the first grade
- D. Ability to write numbers to 100 in the second grade

GRADES THREE AND FOUR**I. Objectives**

- A. To continue to develop the habits and skills attained in the preceding grades
- B. To introduce writing with pen and ink
- C. To correlate writing with other subjects
- D. To help the child develop a "writing consciousness"
- E. To observe left and right margins in all writing

II. Procedure

In schools where manuscript writing has been used in grades one and two, cursive writing frequently is introduced in the third grade. Attention must be given to form of letters and freedom of movement. Correct writing habits should be carried over into all written work. The child should be cognizant of his own shortcomings and critical of his own work. The teacher must discover the child's difficulties and give individual help wherever needed.

III. Attainments

- A. Ability to write correctly and with ease, material needed at the child's grade level
- B. Ability of the child at either grade level to analyze his own writing and correct his errors
- C. Ability in the third grade to write at least 40 letters per minute and in the fourth grade to write 50 letters per minute

GRADES FIVE AND SIX

I. Objectives

- A. To continue to develop the habits and skills obtained in the preceding grades
- B. To develop a greater desire in the pupil to write well at all times

II. Procedure

Beginning in the fifth grade and continuing through the eighth, the pupil is making continued use of writing. Special attention should be given to slant, alignment and spacing of letters, spacing of words, and letter formation. There should be a close correlation between writing and the other school subjects.

III. Attainments

- A. Ability of the child to write independently and automatically all words for which he has need
- B. To use correct margins and forms in all written work
- C. To write in the fifth grade, 60 letters per minute; and in the sixth grade, 70 letters per minute (see Table of Vocabularies and speeds, page 44)

GRADES SEVEN AND EIGHT

I. Objectives

- A. To make perfect the habits and skills started in the earlier grades
- B. To develop a pride in good writing, in and out of school

II. Procedure

The writing of children in the seventh and eighth grades should be carefully tested to discover what skills need further practice. The handwriting program should be planned in accordance with the difficulties discovered. Individual instruction must be given where needed. When a child in the seventh or eighth grade demonstrates that he has acquired such skill in writing as, in the teacher's opinion, meets the writing requirements that are apt to be imposed upon him, he may be excused from further formal writing drills. The quality of his writing should be measured periodically, however, to assure that he is maintaining his high writing score. It may be necessary to require further writing drill of him if he shows need for it.

III. Attainments

- A. To meet the standard set for these grades
- B. To write at a speed of 75 or 80 letters per minute (see Table of Vocabularies and Speeds, page 44)

COURSE OF STUDY IN SPELLING

General Suggestions

I. Introductory Statement

Whenever a person is going to write, he must know how to spell the words he wishes to use in expressing his thoughts. The words which children should be taught to spell are those words which they will need to know as children and those which they may reasonably be expected to need in adult life. In spelling, more than in any other subject of the elementary school curriculum, it is possible to anticipate what the need of the individual will be. A number of investigations have been made to determine which words are used in the writing both of children and of adults. The results of these investigations have yielded a reliable list of words which has become the basis of the spelling program of the elementary school.

II. Criteria for Inclusion of Words in the Spelling List

- A. Commonness and frequency of use in writing: Since spelling has little use in oral intercourse, it is safe to permit the written use of words to determine the need for their inclusion in the spelling list.
- B. Spelling difficulty: There is no merit in a child's studying the spelling of words which he already knows how to spell. Some words submit so readily to syllabification that they rarely present spelling difficulties. The possibility, then, that a word may present a spelling problem should be a criterion for determining its inclusion in the spelling list.
- C. Cruciality. It is possible that words which are not in common use in writing, and which present no serious spelling difficulty, may be so important to an individual on the occasions when he does need to use them that there is justification for including them in the list of words to be learned. A person's own name and the names of people with whom he has relationships, the names of places close to him, and words peculiar to his profession or vocation must be spelled properly.

III. Objectives

- A. To develop the ability to write words commonly used in written expression with the correct sequence of letters
- B. To acquire an appreciation of the importance of correct spelling and a pleasure and pride in one's ability to spell (sometimes called a "spelling conscience")
- C. To develop a "spelling consciousness," which is the ability to recognize almost instantly the correct and the incorrect spelling of words

IV. Text and Equipment

A. Text: Newlon-Hanna Spellers, grades one to eight inclusive

B. Equipment

1. Dictionaries for use in elementary grades (picture dictionaries may prove useful in lower grades, "school" dictionaries in the intermediate and upper grades)
2. Spelling notebooks for recording words needing special drill

V. Procedure and Content

A. The spelling list

The studies that have been made to determine which words should be included in the spelling lists are in closer agreement on the point of the list than they are upon the sequence in which the words should be presented. It is safe to assume, however, that any recognized speller or series of spellers written by a known authority in the field of spelling and published by well-known and reputable publishers will present the words which the child needs to know in a grade sequence that permits of the words being learned effectively. The child's need for a word is the most important factor in determining the grade in which it should be taught. Words which are used most commonly and most frequently and which are most crucial should be taught first. No word should be placed in a grade for which it presents little or no difficulty, and words of too great spelling difficulty should be taught in later grades.

Most authorities agree that a writing vocabulary of from 4000 to 5000 words is adequate for the average child, and that the thorough teaching of 3000 to 3500 carefully selected words is a sufficient task for the elementary school.

B. The test-teacher procedure

The teacher may save much time and effort if children are tested upon a given spelling lesson before the words are assigned for study. During the test the teacher pronounces each word carefully and uses it in a sentence, and pronounces it again. Words which the pupil can spell need not be studied, but one testing is not enough to make sure that the word does not present spelling difficulties. Many times children will spell a word correctly once and then be unable to spell it on later tests. Eliminating words from the list which the pupil knows he can spell reduces the number of words for study and gives a correspondingly longer period of time for study of the words that the pupil cannot spell.

When the child and the teacher both know which words require study, the teacher can pay particular attention to those

words during the study period and can see that each child has an effective method of study.

Some procedures in the teaching of spelling make use of a whole week for each lesson. The first day is devoted to the introduction of the words and the preliminary test. The second day is used for the study of the words misspelled on the first test and the review lesson. The third day is used for a test on the new and review lesson. The fourth day is used for the study of the new and the review lesson. The fifth day is used for a final test on the new and on the review lesson. Only the pupils who make errors are required to study. They should spend time only on their own difficulties. Those who do not require spelling study may use their spelling time on other work.

C. Spelling difficulties

An analysis of types of spelling errors shows the following are the most common

1. Omission of letters
2. Transposition of letters (hrose-horse)
3. Spelling phonetically (bot-bought)
4. Alternating letters (recieve-receive)
5. Unnecessary doubling (makking)
6. Failing to double (runing)
7. Doubling wrong letters (reccomendation)
8. Homonyms (air-heir)
9. Adding extra letters (finde)
10. Omitting silent letters (fin-e)
11. Omitting final letters (seein)
12. Confusing the word with another (attitude-altitude)

D. Cause of spelling difficulties

1. Poor writing
2. Inability to pronounce the word
3. Lack of interest and motive
4. Lack of method of attack
5. Wrong copying of word while studying
6. Ignorance of the meaning of the word
7. Carelessness
8. Physical defects such as poor sight or hearing
9. Defects in the nervous system

E. Method of teaching spelling

In presenting a new lesson the child is taught

1. To pronounce each word correctly

2. To emphasize syllables in either written or oral form, or both
 3. To picture the word as a whole
 4. To know the meaning of the word
 5. To recognize any particular "hard spots" that make the word difficult to spell correctly
 6. To follow a sequence of steps that has the greatest economy in learning to spell a word*
 - a. Pronounce the word clearly to yourself
 - b. Carefully copy the word
 - c. Look at your copy and say the letter twice
 - d. Cover the word and make believe you are writing the word on paper twice
 - e. Write the word on paper without looking at the book or your copy
 - f. Check your word. Did you spell it correctly?
 - g. If you missed the word, go over the steps again. When you are sure you can spell the word, go on to the next word.
 7. To make use of helpful devices
 - a. Many words have similarities to known words and can be remembered in this way. The word "Alice" has helped innumerable people recall the order of letters in such words as "receive" and "believe".
 - b. Dissimilarities. Some children can acquire a word best by recalling that it is not like another word which is known.
 - c. Smaller words in a given word. Long and difficult words can be broken down into simpler components and remembered in this way.
 8. To recognize his own "demons"—words repeatedly missed
- F. Motivation

The child should realize that correct spelling is a very essential part of all writing. Obviously the teaching of spelling is not complete until the word can be spelled properly in context form, and the teacher must develop the child's desire to spell by showing him the necessity for good spelling in the things that he does. Many activities will help to give him the desire for proper spelling.

1. He may write letters to schoolmates who are absent
2. He may write to grandparents, uncles, aunts, or cousins
3. He may write holiday greetings

*Newlon-Hanna Speller, Grades One and Two, Page 1. Houghton Mifflin, 1939

4. He may write letters asking for information or transacting business, or letters of thanks for services rendered him
5. He may write poems, stories, and book reviews for others to read
6. He may write minutes of his club meetings or stories for the school paper

Spelling lessons and tests can be so accurately and objectively graded that charts and graphs kept by the pupil showing his spelling progress are easily made and serve as excellent motivating devices.

G. Using the dictionary

The child should develop a wholesome respect for the dictionary. He should recognize that next to knowing how to spell a word the best thing is to know where he can find its proper spelling. Obviously a person who does much writing in his daily affairs will accomplish little if he is compelled to refer to the dictionary for every word which he desires to use. On the other hand, every person who writes will wish sooner or later to make use of a word he cannot spell. The child should be shown the distinct dictionary functions which are on his level:

1. How to spell the word
2. How to syllabify the word, and to pronounce it
3. How to define the word to suit the context in which he finds or wishes to use it

H. Correlation with other subjects

Spelling correlates with every other school subject that has any written usage, and has use even in oral speech in that it may be needed to establish proper pronunciation. There is considerable difference of opinion among teachers as to the extent to which corrections of pronunciation and grammar should be made in the oral recitation of a child, but there is no division in the belief that misspelling in written work should always be corrected.

A pupil should recognize that wherever a word is written there is a possibility that it may be misspelled. If he is writing upon a subject which is apt to present a spelling vocabulary with which he is not familiar, there is very definite merit in looking up the spelling of these words before he begins to write. He thinks more freely as he writes, since it is not necessary to stop to puzzle over strange words, and he is not establishing the wrong spelling of the words by using them several times improperly spelled. For example, a seventh-grade pupil who is about to write a story about things he expects to see on an imaginary trip to Hawaii would do

well to first look up the spelling of pineapple, Mauna Loa, plantation, and Honolulu. This should be done at the time he is making his outline so that he will have the words properly spelled before him when he begins to write.

VI. Measuring Results

The most important tests are those which form a part of the regular spelling procedure. These tests focus attention on the specific difficulties of individuals. When a teacher receives a new class or new children, she should test their ability in spelling. These tests have two main purposes: they mark the point from which the pupil's growth may be measured, and they identify pupils who should receive special help. Tests given at the end of a term or period show the progress that has been made.

Tests can be planned so as to compare achievement of an individual or a group with children of the same grade in other schools by the use of standard spelling scales. Spelling is measured in many of the achievement scales shown on page 124. The teacher who desires to use these scales to measure spelling should obtain advertising material regarding the tests, or sample copies, to assure herself that the measurement of spelling is included in the testing program. The well-known spelling scales are:

- A. Ayres, L. P., *Ayres Spelling Scales*. Russell Sage Foundation, New York, 1915
- B. Ashbaugh, E. J., *Iowa Spelling Scales*. Public School Publishing Company, Bloomington, Illinois, 1919
- C. Buckingham, B. R., *The Buckingham Extension of the Ayres Spelling Scale*. The Public School Publishing Company, Bloomington, Illinois, 1918

Standard Spelling Tests

- A. Ashbaugh, E. J., *Iowa Dictation Exercises and Spelling Tests*. Extension Division, State University of Iowa, Iowa City, Iowa, 1917
- B. Kelley, T. R., Ruch, G. M., and Terman, L. M., *Stanford Achievement Test*. World Book Company, Yonkers-on-Hudson, New York, 1923
- C. Monroe, W. S., *Monroe's Timed Sentence Spelling Test*. Public School Publishing Company, Bloomington, Illinois, 1918
- D. Morrison, J. C., and McCall, W. A., *Morrison-McCall Spelling Scale*. World Book Company, Yonkers-on-Hudson, New York, 1923
- E. Starch, D., *Starch's Spelling List*. University Co-operative Company. Madison, Wisconsin, 1915

F. Hudelson, E., Staton, F. L., and Woodyard, Ella, Sixteen Spelling Scales, Bureau of Publications, Teachers' College, Columbia University, New York, 1920

VII. Bibliography

- Billington, Lillian E., Spelling Games for Words, Eighth Year. Silver Burdett Company, Chicago, 1940
- Breed, Frederick S., How to Teach Spelling. F. A. Owen Publishing Company, Dansville, New York, 1930
- Courtis, S. A., Teaching Spelling by Plays and Games. Courtis Standard Tests, Detroit, Michigan
- Gleason, Nell K., Spelling Games. Beckley-Cardy Company, Chicago, 1927
- McKee, Paul, Language in Elementary School. Houghton Mifflin Company, Boston, 1931
- Tidyman, W. F., The Teaching of Spelling. World Book Company, Yonkers, New York, 1922
- Zyve, C. T., An Experimental Study of Spelling Methods, Contributions to Education, Number 466. Teachers' College, Columbia University, New York, 1931

GRADE ONE

I. Introductory Statement

The use of spelling in this grade grows out of reading and language needs, and words receive little emphasis as spelling words. Early work in reading draws attention to words as a whole and later, when similarities of words are noted and word analysis begins, the phonetic values of letters are taught.

II. Objectives

- A. To show that words, as used in print or writing, are made up of certain symbols which represent speech sounds
- B. To enable the child to write his own name without copying
- C. To enable the child to write about fifty different words in original sentences without copying

III. Texts and Materials

The Newlon-Hanna Speller, Grades One and Two

Pupils in the first grade do not have spelling books in their own hands. The adopted series suggests fifty words which the teacher may teach as spelling lessons in the last ten or twelve weeks of the school year, choosing words that grow out of reading and language lessons.

IV. Procedure and Content

The sequence of processes for the earliest spelling lessons is somewhat different from that suggested in the Introduction for teaching spelling generally. For the first lessons, the teacher should have the words on the board and they should never be more than five in number. The teacher pronounces a word and the children repeat it and use it in sentences which indicate that they understand its meaning. The teacher then slowly spells the word orally, writing each letter as she says it. The pupils look closely at the word; then close their eyes and try to visualize it. Then each child should trace the word with the blunt end of a pencil, in the air, or on his desk.

The teacher may then ask the class, "Who would like to write this word on the blackboard?" encouraging the pupil to make his writing large so all may see it, and to say each letter as he writes. If the child has difficulty in writing the word, the teacher may help him or ask: "Who will show (Harry) how to make the word?"

The teacher then writes the word again, showing the pupil the sequence of the letters. The children spell the word orally.

The children write the word on paper, saying the word softly, and the teacher passes from pupil to pupil to give encouragement or help. After the children have written the word, they should

compare what they have written with the word on the board, going to the board for closer inspection if they wish. The teacher then covers the word and the children write it again.

The children should be given interesting activities which will show a real purpose in learning how to spell. Many of the activities suggested in reading and language contribute to spelling. Other are:

- A. Making word lists or dictionaries with cut-out pictures pasted on sheets of paper
- B. Printing labels for toys, books, and to paste on pictures of objects in the room
- C. Printing children's own names for lockers, coat hooks, or lunch boxes

On succeeding days the words previously taught should be reviewed, and words that still cause difficulty should be retaught. In reviewing and reteaching, as in the first teaching, the teacher and the pupils should make use of many sentences to make clear the meaning and the use of the words spelled.

V. Measuring Results

This is largely informal but some standardized tests extend down to these grades, (see list, page 124).

GRADES TWO AND THREE

I. Introductory Statement

In the second grade the pupil has a speller in his hands. To him it is another storybook, in that all words are presented in stories. The basal text suggests a program which carries through the five days of the week to introduce the words of each story. Teachers should study the plan carefully.

II. Objectives

- A. To enable the child to spell in writing, correctly and automatically, the words of his writing vocabulary
- B. To develop an adequate meaning for all words taught
- C. To develop the child's confidence in his own ability to spell words correctly

III. Text and Materials

The Newlon-Hanna Speller, Grades One and Two, is the text in use at the time this course is published. The children may have primary picture dictionaries or may make dictionaries of their own. During this year the children may begin the habit of keeping word lists of "demons" that they find difficult or of interesting words they discover and wish to record.

IV. Procedure and Content

There should be no difference between the approach to the stories in the speller and those the children may be reading from readers or other books. Many activities which grow out of reading and language lessons present spelling situations—words which the children will wish to use in writing and which accordingly they must spell. The children are now becoming more letter-conscious and by the end of the second year most children will know the alphabet.

Writing activities are now definitely increasing. The simplest of these is copying, from written or printed copy, on the board or on paper. An advance from copying is writing from dictation, as this type of writing involves spelling. A step beyond this is writing original sentences. Children have been giving sentences to the teacher to write on the board since the beginning of the first grade. She must recognize that in speech and in reading, children use many words which they should not be required to spell. If they are to be expected to use these words in writing, the words must first be put on the board by the teacher so that they may be copied. Such words as automobile, behind, airplane, different, distance, double, during, season, second, fourth, separate, something, shoulder, are used very early by children but present difficulties which remove them from the spelling vocabulary of primary children.

V. Measuring Results

Each spelling lesson is an informal test. Children should be tested periodically on longer lists of review words. Words missed in such tests must be retaught until the spelling of them becomes automatic. There is a traditional tendency to give tests or examinations at the close of a school year. Such tests are of doubtful value unless a record of the words missed is kept for early reteaching the following year. A much better practice is to give tests at the beginning of school periods. (A list of standardized scales and tests is given on pp. 124 and 166.)

VI. Attainments

- A. The ability to spell correctly the words in the spelling list for this grade
- B. The ability to spell the proper names which each child uses frequently
- C. The ability to spell a few additional words (twenty or thirty) which have interest and use for the child
- D. The beginning of spelling consciousness

INTERMEDIATE GRADES

I. Introductory Statement

The child is now well into the period of rapid progress in reading and is meeting so many new words that he wishes to use in his written stories that he has a very strong motive for learning to spell. The teacher must still expect the child's speaking vocabulary greatly to exceed his reading vocabulary, and his reading vocabulary to be about three times as great as the vocabulary he can spell. (See table, page 44.) For this reason the teacher can anticipate many mistakes in spelling in the children's original work. Care must be taken to capitalize this motive, but the teacher should avoid the danger of allowing a child's spelling limitations to discourage his written expression.

II. Objectives

- A. Accurate pronunciation of each word used
- B. The ability to divide words into syllables
- C. Correct use of common words and ability to give colloquial definitions and logical definitions
- D. Ability to spell words equal to the grade standard
- E. Ability to spell modified forms such as plurals, and tense and participial forms
- F. Increased understanding of the use of the dictionary, and the habit of correcting written work
- G. Development of a "spelling consciousness"

III. Text and Materials

- A. Newlon-Hanna Spellers
- B. Word lists
 - 1. Pupil's individual list
 - 2. General lists developed by the group from each unit studied
- C. Dictionaries

These should be dictionaries prepared especially for school use, and not abridgements of large dictionaries which use adult vocabulary in definitions

IV. Procedure and Content

- A. The dictionary

If pupils have been using primary picture-dictionaries, they have developed the dictionary idea before coming to the intermediate grades. Children in intermediate grades should use the dictionary in much the same manner as an adult uses it, not to acquire vocabulary, but to verify spelling form and meaning of words already in use. The teacher should

give an occasional timed dictionary test to discover which children need help in the technique of using the dictionary. Those children who are particularly slow need drill on alphabetical arrangement as the basis for speeding up their use of the dictionary.

B. Spelling rules

There is much difference of opinion as to the merit of learning rules of spelling, but there is pretty common agreement that the rules that are learned are developed from practice and not set up independently to guide practice. For example, the teacher would not have children commit to memory a set rule regarding the use of final "e" silent. Instead, as children begin using plurals of words ending in "e" silent, or adding participial or other suffixes, attention could be called to the fact that the "e" is usually dropped if the suffix begins with a vowel and retained if the suffix begins with a consonant. There are so many exceptions to most of the spelling rules in English that it is doubtful if the learning of these rules has great value in the spelling of words.

C. Games and devices

The radio has given an impetus to spelling games, spelling matches, and quiz programs. The teacher may capitalize on this renewal of interest in devices of this type, giving particular emphasis to those features of the game which demand the meaning and use of the word as well as its mere spelling. It is well to remember that spelling has little use except in written expression, while word meaning, and word use enter into all our speaking, and even, our thinking processes. Some games are very useful in establishing the use and meaning of words.

1. Anagrams

This is a splendid game, in that it may be made by the children themselves and it may be adapted to any school grade by simple changes of rules. To make the set of letters, the pupils print on half-inch cardboard squares or select from printed word-building sets one hundred and eighty letters. These should be distributed as follows: sixteen "E's"; twelve "T's, A's, I's, S's, O's, and N's"; ten "H's and R's"; seven "D's and L's"; six "U's, C's, M's and F's"; four "W's, Y's, P's, G's, V's, and B's"; and two of each of the others.

To play the game, the letters are turned face down on a table with an open space in the middle of the table. Each player draws a letter and turns it face up in the open space. As soon as a player can make a word from the letters exposed, he places his word face up on his side of

the table. The one who has the most words, when all the letters are exposed or used, wins the game. A player may capture another player's word by adding letters which are in the pool. He may not change the word to another form of the same word, such as plural or tense form, but he must make a different word. For example "am" could be captured by a player, who drew an "h", to make it "ham". If another drew an "s", he could not make it "hams" but he could capture it by making it "sham". It could be captured again to make it "shame" and might end up as "hammers". Every letter of the word must be used when it is captured. A player may protect his own words by adding letters to them, either to change their forms or to make new words. The game may be made more difficult for older pupils by starting with three or four-letter words, and by counting letters for the total instead of words. Except for small children, the game should always be played with a dictionary and only words which can be found in the dictionary agreed upon can be counted. Proper names can be counted or excepted as the players wish.

2. Radio program

Over an improvised loud-speaker the children may broadcast programs involving use and definitions of words. These may be of many kinds:

a. Multiple choice

- (1) If you had a puttee, would you ride it, play a game with it, wear it, or eat it?
- (2) Where would you find the cologne? On a dining table, in a bureau drawer, down a well, or up a chimney?
- (3) Does a psalm have dates on it, fingers sticking out of it, or music to sing with it?

b. Distinguishing similar words

- (1) What is the difference between a colonel and a colonial?
- (2) What is the difference between an empire and an umpire?

c. Homonym games

3. Crossword puzzles

4. Word-matching games

5. Deliveryman games

Five words may be printed on separate cards for each of several occupations. The farmer would have wheat,

cows, hay, pigs, and horses; the janitor would have brooms, mops, dustcloths, soap, and dustpans; the mailman would have letters, postcards, papers, packages, and stamps; and so on. Several children stand in different parts of the room to represent these different characters and the names of the characters are written on the blackboard above the children's heads: "Janitor," "Postman," etc. A child is given the shuffled word cards and must deliver the proper cards to each station. If the postman receives a card he doesn't want, he puts it in the chalk trough with the word hidden. The number of words wrongly delivered is a score against the child playing the game, but if one of the receivers refuses a word he really should have, the deliverer scores extra points.

IV. Measuring Results

Test for use and meaning as well as for spelling. Use standardized tests to discover how pupils' progress compares with established norms. A list of these tests is given on pp. 124 and 166.

V. Attainments

- A. Ability to spell correctly the words of each grade with an accuracy of 90 to 95 per cent
- B. Ability to spell all proper names which have wide local usage
- C. Ability to pronounce well and enunciate clearly
- D. Ability to spell words for which the child has individual need

GRADES SEVEN AND EIGHT
or
JUNIOR HIGH SCHOOL

I. Introductory Statement

Some of the children in these grades will have a speaking vocabulary of ten thousand words, but they should not be expected to spell more than a third of this number. Increasing the child's ability to use the dictionary, however, gives him a writing ability with many of the words he cannot spell.

II. Objectives

- A. To develop a pupil's ability to direct his own study of spelling
- B. To quicken the "spelling conscience," that is, to lead a pupil to feel that it is very important to spell correctly
- C. To develop "spelling consciousness"
- D. To gain mastery of the ability to use the dictionary

III. Text and Materials

- A. The Newlon-Hanna Spellers
- B. Individual dictionaries for pupils; an unabridged dictionary
- C. Individual and class-word lists

IV. Procedure and Content

- A. The teacher should have available one of the word studies, such as the Thorndike Word Book of 20,000 words, in order that she may be able to determine the usefulness of words that develop outside of the regular spelling lessons. There is little merit in attempting to learn the spelling of difficult words which come later in the word list than the fourth thousand unless the words have definite local use. For example, the word "tipple" comes in the sixteenth thousand and is accordingly a comparatively rare word, but it might have wide use in a Montana mining community, as might also gallows, smelter, and tramway. Runway, larch, planer, and other words that are listed as rare words have daily use in Montana lumbering regions, as do also buzz-saw, canthook and other words which do not even appear in a list of the twenty-thousand commonest English words.

B. Dictionary study

A pupil should be able to make careful distinctions in selecting the definition of a word which fits the context in which he finds or uses it. He is not particularly interested in word derivations, but he should be taught to verify forms of a word from the dictionary. He should also have learned,

by the end of the eighth grade, to use the unabridged dictionary as a source of biographies, foreign expressions, geographical names, proper names, and other information.

C. Study and review of the spelling of words

The boys and girls who complete the eighth grade will have little opportunity later to perfect their skills in spelling. Those who are notably poor spellers should be given definite remedial help here and now to correct their difficulties. It is pretty well-established that pupils whose achievements surpass the normal spelling requirements of the grade might be excused from further participations in spelling lessons. Such pupils should be tested occasionally, when other tests are being given, to discover if their abilities in spelling are suffering a relapse. Definite testing and reteaching should mark this period in the spelling program.

D. Games and activities

The varied writing activities of these grades, such as minutes, school paper, and correspondence give definite motivation to spelling (see spelling games suggested in the intermediate grades)

V. Measuring Results

Test at the beginning of a period and reteach to correct the weaknesses discovered. Use standardized tests (pp. 124 and 166) for comparison with established norms. Have pupils keep grade charts to show their individual progress.

VI. Attainments

- A. Ability to spell the words of the grade with an accuracy of 90 to 95 per cent
- B. A realization on the part of the pupil that he must be able to spell if he is to express himself with freedom in all written work
- C. Familiarity with uses of the dictionary

COURSE OF STUDY IN MUSIC

General Suggestions

I. Introductory Statement

Music, more and more, is coming to be recognized in the educational world as a major subject in the curriculum. It helps develop mental powers, physical control, social adjustment, individual self-reliance; and above all, it provides a permanent means of leisure employment and of happiness, as well as ample opportunity for creative expression.

This course of study has been outlined chiefly with the needs of the rural and smaller schools in mind, although it may be used in any school system. As a result, an attempt has been made to provide the teacher, in the school where facilities are limited, with a simple commonly-used procedure for each technique to be developed. Additional procedure for each technique may be found in the teachers' manuals which accompany any well-planned music series.

The amount of material here outlined is neither a minimum nor a maximum list. It is merely suggestive of what may be used. The amount of material to be covered in any one year will be determined by the previous experiences or abilities of the pupils as well as by the time and facilities available.

Through a statement of specific aims for each grade, we have attempted to clarify in the mind of the teacher the expected outcomes, realizing that the outcomes in all cases will not be the same, due quite largely to individual differences. In order to achieve these desired results, techniques and procedures have been selected which, we feel, will best suit the individual needs, capacities, and interests of all the children.

Throughout the entire course we must keep in mind that the goal of instruction is appreciation and enjoyment in expression. Appreciation, in turn, may be defined as pleasure or joy in the substance of music, which is tone, and in tonal discourse.

II. Teaching Suggestions and Procedures

A. Graded schools

The natural set-up in the graded schools would be by grades. It is suggested that "at least" fifteen minutes a day be given to the first three grades; twenty minutes a day to the next three; and ninety minutes a week to the other two. Teachers who feel that they are inadequately prepared in music may find it possible to trade off classes with other teachers in their building who are better prepared. Superintendents should feel free to make these changes when requested or when they feel the necessity.

B. One-room schools

A daily music period should be held in all schools. Some teachers may desire to divide their music periods for the upper and lower grades. For example, twenty minutes, two days a week, for the lower grades; twenty minutes, two days a week, for the upper grades; on the fifth day, twenty minutes or more for the entire school. Where the schools are small, this probably will not be practical and the music periods should include all of the children in the school.

Care should be taken in the selection of materials used. Part of the time the songs should be of major interest to the children of the lower grades, part of the time to those in the upper grades. Obviously, some of the songs will be of interest to all of the children.

III. The Music Period

A. Scheduling

Emphasis must be placed upon regular scheduling of the music period. To obtain the best results, a regular period should be set aside every day. Some teachers may desire to use the opening-exercise period for a music period. This procedure is entirely practicable, providing music in the opening exercise is taught as a regular music lesson, not merely as entertainment.

B. General procedure for all grades

The period should begin with the singing of one or more songs previously learned and perhaps chosen by the group. This may be followed by some theoretical work, after which a new song should be started. It is very important that the teacher should have mastered the new song thoroughly before trying to present it to the group. Some time may be spent in talking about the song, showing pictures which correlate with it, connecting it with history, geography, or other subjects. Perhaps all that can be done with the new song the first day is to merely create an interest and the desire on the part of the pupils to learn the song. Repeat this procedure on succeeding days until the song is thoroughly learned. The period may end with familiar music or with phonograph music chosen by the children.

IV. Sight Reading

Reading music: learn to read music by reading. Do not stop to talk about notes. Concentrate on following the melody and feeling the rhythm. In songs unfamiliar to the class, it is sometimes helpful to read the words in the rhythm of the notes before trying to follow the tune. Fix the rhythm first and the tune will be easier to read. Singing from the score is probably not the

most important problem in teaching school music. The teacher who is wise will make an interesting game of sight-reading. She will never allow it to become drudgery or to take precedence over the joy of song singing. Do not think that note-reading is unimportant; it is very important. However, too much emphasis may be placed upon this phase of music teaching.

The usual procedure for teaching sight-reading is through the use of the observation song, sometimes called a "pattern song." The teachers' manual which accompanies any well-planned music series will give this procedure in detail. The use of the tonic sol-fa system is more or less general throughout the United States; however, the use of numbers as an aid to sight-reading is coming into use more and more. The procedure for the use of numbers is to be recommended to those teachers who are not satisfied with the syllable system and who feel unsure of themselves with the syllables. We cannot justify a change from syllables to numbers merely on the score of doing something different.

The procedure for teaching with numbers is as follows: First, find the key signature, just as you would do if you were using syllables. Instead of calling the key note do, you will call it one. In like manner, do, re, me, would be one, two, three. For example, in singing the first phrase of **America** by the sol-fa system, it would be: do, do, re, ti, do, re; mi, mi, fa, mi, re, do; re, do, ti, do. In using the number system, it would be: 1, 1, 2, 7, 1, 2; 3, 3, 4, 3, 2, 1; 2, 1, 7, 1. A series of ear-training exercises should be used with this procedure. A simple series, which is in general use, is the broken chord of the tonic, subdominant, dominant seventh, and tonic. By the "numbers system" this series would be: 1, 3, 5, 1; 1, 4, 6, 1; 2, 4, 5, 7; 1, 3, 5, 1. The order of the numbers will change with the key of the pieces used.

V. Music Appreciation

The finest type of music appreciation is that which is taught during the regular music period. Every music period should be considered a music appreciation lesson. Whatever the phase to be studied: presentation of rote songs, study of notes, correlation with other subjects, or theory, the aim should be to develop the ability on the part of the child to listen and to build up an acquaintance, understanding, and skill so that his appreciation may grow. In the singing lesson, exhaust all the possibilities of the song from an appreciative basis.

VI. Listening Lessons

This is the type of lesson which is generally called "music appreciation." There is a definite place in the music program for listening to music other than that which the student produces himself. Obviously, this is part of his training in the appreciation

of music. Subject matter here is of prime importance. It is essential that the recordings chosen must be within the comprehension of the listening group. Recordings of fine selections, which are heard many times, provide a background of comparison and judgment for what is good and bad in music. Contemporary music should not be neglected. Many of our so-called "popular songs" are very fine and should be included in the listening lessons. Out-of-school listening lessons may be made very effective through the use of the radio. A comprehensive list of records will be found in the booklet "Victor Records for Elementary Schools."

VII. Rhythmic Work

Many types of rhythmic development may be projected by the teacher. Rhythmic response to music is a process that must continue through each grade, starting with the larger body responses and gradually working toward the mental as well as the physical responses. Some of the following procedures may be used in developing rhythmic response in the child:

- A. Rhythmic play: natural response to music such as skipping, running, marching, swaying, jumping, and slow walking
- B. Free expression: creative activities suggested by the music, as animals walking, doll dancing, playing soldier, fairies
- C. Folk games: singing-games or games played to recorded music, such as Mulberry Bush, Looby-Loo, Drop the Handkerchief
- D. Folk dances: use of piano or phonograph for folk dances, such as Hansel and Gretel, Ace of Diamonds, Captain Jinks, Hewett's Fancy, I See You, Rufty Tufty, Sailor's Hornpipe
- E. Dramatizations: The acting out of a known or original story to music, such as "In the Hall of the Mountain King," "The Funeral March of the Marionettes," "Oh, No, John"

VIII. Instrumental Music

A. One-room school

Instrumental music is entirely practicable for the one-room school. The lower grades probably should concentrate upon the rhythm band, the upper grades upon harmonica classes and pre-band instruments. The pre-band instruments and the rhythm band may be combined into one group for special occasions. It should be noted that instrumental music will not take the place of the regular lesson in music; it should be considered an extra-curricular activity. This activity may be a decided help to the sight-reading program.

B. Graded schools

Rhythm band activities should be started in the first and second grades, and may carry over into the third or

fourth grades. Pre-band-orchestra instruments may be started in the third grade and can be effective up to the sixth grade. Among the pre-band instruments to be recommended are the song flute, tonette, symphonette, and drums. Many children will be ready to start on real band and orchestra instruments by the time they are in the fourth grade. If instrumental music is to be effective in the high school, it must be started in the grade school. While the child is never too old to start upon an instrument, generally speaking, he should start as early as possible.

IX. General Suggestions

Make the music period one of the most enjoyable periods of the day; the children should sing for the fun of singing. Always start the period with something familiar to the class; it is also advisable to end with familiar music. Music has a special emotional and aesthetic appeal; when the teacher fails to meet this appeal there is danger that the music class will be dull and uninteresting and, as a result, nothing will be accomplished.

Make your music plans so that they may be changed easily. Meet the demands of the occasion; make your programs flexible and varied. Make your music program accumulative; connect each day's lesson with the lesson which preceded it. Plan far in advance programs for your special days.

Always use your pitch pipe and use it correctly. Do not guess at the pitch of songs. It is impossible to overemphasize the importance of correct pitch and of singing in tune.

Feel the correct tempo of the music. Train the children to maintain the proper speed by listening to their music.

Drill work can be interesting if presented in an interesting manner. Make a game out of theoretical problems. Drill methods probably should not be used until the children have discovered the necessity for drill.

The especially talented children should not be neglected. Work with individual children is essential in all music programs and the especially talented children need as much guidance as the slower children.

Bring in outside talent to sing or play for the children whenever possible. Your own school or community will be able to provide this talent if you look for it.

Plan listening lessons for the children when they are at home. Have them make reports as to what they have heard over the radio or on the home phonograph.

Popular music should not be neglected. Make use of the appeal this type of music has for the young child. Let the children turn "tune detective" and learn where many of our present popular songs originated.

Do not be afraid to ask advice. All teachers have not had equal opportunities in the study of music; all teachers can teach music well if they have the desire to do so.

Music is fun. Make your music classes enjoyable.

X. Minimum Attainments for Elementary Rural and Graded Schools

A. Theory

1. Each child should recognize and be able to tell the value of: whole-note and rest; half-note and rest; quarter-note and rest; eighth-note and rest
2. Scales and tonic chords should be written for the first nine major keys; C, D, G, A, E, F, B \flat , E \flat , and A \flat
3. All children should be able to make a staff, place the treble clef, and give the letter names of the lines and spaces
4. Each child should be able to explain the more common expression marks, as: m. f.—moderately loud; p—piano, softly; f.—forte, loudly

B. General Music Information

1. Each child should become acquainted with the instrument of the orchestra
 - a. String section: violin, viola, cello, double bass, harp, piano
 - b. Woodwind section: piccolo, flute, oboe, English horn, clarinet, bassoon
 - c. Brass section: trombone, trumpet and cornet, French horn, tuba
 - d. Percussion section: snare drum, bass drum, tympani
2. Each child should be able to recognize, by name and composer, from ten to twenty well-known compositions (a few of the better popular pieces might be included in this group)
3. Each child should be able to distinguish the mood of a composition upon hearing it

C. Singing

1. Unless handicapped by physical defects, each child from the third grade on should be able to sing with a live, vital tone, all songs that have been taught to the group as a whole

2. Children from the fifth grade up should be able to sight-read, individually, songs that the class as a whole can read

D. Rhythm

1. Each child should be able to distinguish between measure forms: as 2/4, 3/4, 4/4
2. Each child should be able to march (slow and fast), walk to a three-meter rhythm, and skip

E. Creativity

1. Many of the children should be able to create simple tunes, comparable to the songs being used in their grade
2. Many children should be able to create dance forms to music heard on the phonograph or piano
3. Several children should be able to create music instruments suitable for use in rhythm bands

GRADE ONE

I. Specific Aims

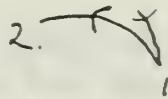
- A. To sing songs with pleasure, beautifully and correctly, in the mood characteristic of the song
- B. Ability to sing pleasingly a repertoire of several songs appropriate to the grade
- C. To lay a foundation for the understanding of technical elements of music
- D. To develop the desire and power to respond to different types of rhythm and mood with a joyous bodily response
- E. To develop appreciation

II. Procedures

- A. Singing songs by rote, employing whole method, using light head tones not exceeding the range of the treble staff
 - 1. A commonly used procedure for teaching by rote:
 - a. Presentation of songs so as to arouse interest and create atmosphere
 - b. Teacher or older pupil sings entire song
 - c. Teacher or older pupil sings first phrase; children imitate
 - d. Teacher or older pupil sings second phrase; children imitate
 - e. Teacher or older pupil joins the two phrases; children imitate
 - f. Remaining phrases learned in same manner
 - g. Teacher or older pupil sings entire stanza to give new idea of the whole with its combined parts
 - h. Children sing entire stanza
 - i. Words of remaining stanza taught
 - j. Accompaniment added if an instrument is available
 - 2. Phonograph may be used (see teacher's manual for procedure)
- B. Rhythmic work
 - 1. Rhythm band
 - 2. Eurythmics (harmonious and expressive bodily movements)
 - a. Listening to and singing songs with well-marked rhythm
 - b. Responding freely to rhythmic activities and singing games
 - c. Responding with bodily movements, such as marching, skipping, swaying, tapping to some form of music
 - (1) An instrument such as piano or phonograph may be used; but if none is available, singing may be used

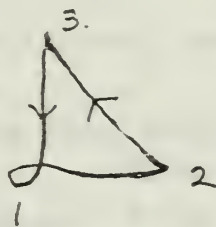
(2) For two-beat measure

- (a) Bring the arms down straight at the sides, firmly, with fingers closed on count 1. Raise arms naturally, bending them at the elbows as they are brought up. Also, pupil strokes down on board and up again at count of 2 to phonograph or other music as shown here.



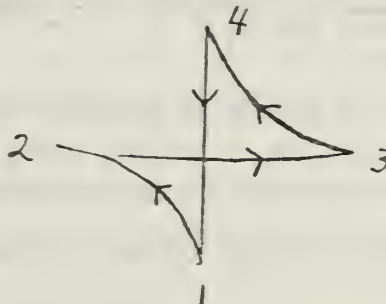
(3) For three-beat measure

- (a) Bring arms down straight at sides, firmly, with fingers closed on count 1; stretch arms out straight from the shoulders to left and right, fingers extended on count 2; raise arms above head with fingers extended on count 3
- (b) Pupil strokes to $3/4$ time on board as song is played or sung



(4) For four-beat measure

- (a) Bring arm down straight at the side, firmly, with fingers closed on the count 1; fold arms across breast on count 2; stretch arms straight out from shoulders to left and right, fingers extended on count 3; raise arms above head with fingers extended on count 4
- (b) Pupil strokes on board to $4/4$ time as song is played



C. Correction of monotones

1. Suggested commonly used procedures

a. Seating

- (1) The best singers in the rear seats across the room
- (2) Those who do not sing quite as well in the next row forward

(3) Those of lesser ability in the next row forward, and so forth

(4) The monotones in the front row

b. Actual correction

(1) Squeal on high "G" or "F", a nee-nee-nee

(2) "Meow" as high as possible

(3) Imitate whistles

(4) Imitate the wind or birds

(5) Give the idea of up and down

(a) Motion with hand the direction of the phrase the teacher sings

(b) Teacher sings or plays two tones; children tell which tone is the higher

(c) Child goes to piano, plays a tone, thinks the tone and then sings it. Was it right?

D. Creative work

1. Creation of a song

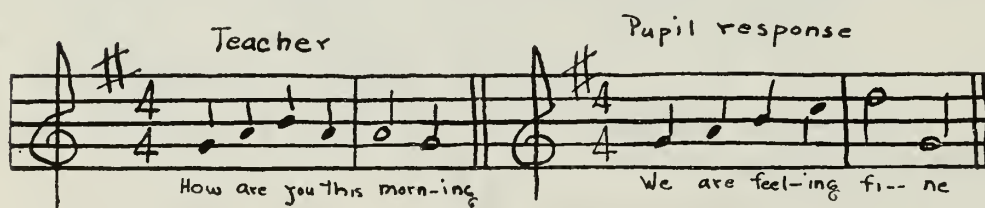
a. Teacher sings first phrase and some child may complete song

b. Sing all but the first note so that the child finishing the song feels the tonality

c. Sing a question which the child answers

d. Ask if there is someone in the class who would like to sing the first phrase

e. Sing both phrases and ask the class to repeat



2. Children make up songs in season and illustrate them by drawings; for example, a winter song would be illustrated by drawing a snowman or snow scene

E. Appreciation—make every music lesson an appreciation lesson

An accepted procedure to develop appreciation

1. Select a song and see that children understand the words and pronounce them accurately

2. Discuss the mood; decide the chief mood of the song as: joyous, sad, humorous

3. Sing to bring out the idea of the song

4. Work for the tone quality that will best express this idea by vocalizing on neutral syllables
 5. Perfect diction: be sure that the diction does not interrupt the free flow of the tone
 6. Develop the climaxes
 7. Add the accompaniment: it should be played in a manner to contribute to the interpretation; it should support but never dominate
- F. Listening lessons: (See suggestions given on page 179, under General Suggestions)
- G. Establish the following habits
1. Correct posture
 - a. singing position: feet flat upon floor, back erect, hands on knees, elbows far apart
 2. Attention
 - a. Eyes in front
 - b. Careful listening
 3. Proper use of singing voice
 4. Memorizing
 - a. Start several new songs at same time; do not attempt to finish one before starting another
 5. Use of taps by teacher
 - a. One tap—hold tone
 - b. Two taps—sing
 - c. Three taps—stop singing

III. Attainments

- A. Ability on the part of 90% of the pupils to sing individually several of the songs sung by the class as a whole
- B. Reduce monotones to less than 20% of the class
- C. The entire class should be able to sing forty to sixty songs with good tone, rhythm, phrasing, enunciation, and fine interpretation
- D. Ability to create simple songs by the class as a whole
- E. To recognize in music, phrase endings, moods, discriminate between fast and slow, and ability to listen quietly to music and enjoy what is heard
- F. Recognition of the actions of movements suggested by typical movements and the ability to respond to them
- G. Recognize ten to fifteen compositions played during the year

GRADE TWO

I. Specific Aims

- A. To continue the development of appreciation of rhythm, creative work, rote singing with correct tones, and correction of monotones
- B. To increase the pupil's listening repertoire
- C. To develop the pupil's ability to recognize instruments by sight and sound
- D. To develop the ability to recognize two-, three-, and four-part meter in music heard

II. Procedures

- A. Continue Grade One procedures, with additions
- B. Begin the study of "sol-fa" syllables or "number" singing*
 - 1. Commonly used procedure
 - a. Teacher: "Today we shall learn a new verse of 'Feather.' First we shall sing the song with words and with neutral syllables—ah or la."
 - b. Children then sing with words and with neutral syllables
 - c. Teacher sings first phrase with syllables
 - d. Children then sing first phrase with syllables
 - e. Teacher asks, "Which phrase is like the first? Then we may sing the same syllables for the third phrase." Children do so.
 - f. Teacher sings second phrase with syllables
 - g. Children sing second phrase with syllables
 - h. Teacher: "Now let us sing the syllables as far as we have gone."
 - i. Teacher sings third phrase with syllables. Children sing third phrase with syllables. Teacher sings fourth phrase with syllables. Children sing fourth phrase with syllables. Children sing entire song with syllables.
 - j. Teacher sings a phrase with "la." Children answer with syllables. Teacher sings a phrase with words. Children answer with syllables. Teacher sings a phrase with syllables. Children answer with words.
 - (1) Suggested procedure to correlate music with other subjects
 - (a) Ask pupil to sing folk songs learned at home or from their grandparents
 - (b) Persons with parents of foreign nationality bring in representative folk and other songs to present to the class

*Syllables will be used in the outline from now on; whenever the word "Syllable" occurs, the word "number" may be substituted if desired

C. Individual singing

1. Formal individual singing where child stands and sings a "solo," often with accompaniment. This may be used as a reward for good work done in learning a song or simply for the pleasure of performing.
2. Throughout the day, the teacher may encourage individual singing by singing requests, commands, roll call and the like, and having the child respond with singing
3. To encourage a child to sing with independence, a song may be sung by having one child sing one phrase, the next in line immediately sings the second phrase without loss of rhythm, the next child sings the next, and so on to the end of the song
4. To encourage the less talented or shy pupil to sing easily and with accuracy, this plan may be used:
 - a. Children are seated, with the best singers in the back row. These are called the "helpers." A pupil in the back row and the first one in front of him stand. The one in back then sings a phrase of a known song. If correct, the class also sings it. If not, the helper sings it and, if correct, the class sings it. Then the first procedure is repeated. This procedure is continued until every member of the class has sung individually. When one has sung a phrase correctly and helped the person in front of him, he may be seated. In a school where there is only one helper, he may continue to help each member of the class.

D. Begin study of staff notations and ear training (commonly used procedure)

1. Teacher has copied the notation of the song, without words, on the board. (Each phrase occupies a line just as the song is written in the book.) Teacher points phrase-wise while the children sing the song with words.
2. Teacher points; children sing with "ah." Teacher points; alternate groups and individuals sing phrases with "ah."
3. Teacher points phrase-wise while children sing entire song by syllables. Teacher points to various phrases, children sing syllables. Alternate groups and individuals sing syllables as teacher points to phrase.
4. Teacher points as she sings words of phrase. Children answer with syllables.
5. Teacher leads children to discover that first and third phrases look alike, as well as sound alike—that, in fact, they are the same

- E. Introduction of instruments, such as violin, and possibly trumpet, cello, or flute, using the same procedure as listed for violin
1. Tell children something about the violin and other stringed instruments
 2. Show a picture of stringed instruments
 3. Bring in the violin and, if possible, play it for the children or have some child or older person play it
 4. Use the phonograph also to demonstrate violin music
 - α. Any good recording of violin. Use "Instruments of the Orchestra," Victor Records 20523 (brass and percussion), 20522 (woodwind and strings)

III. Attainments

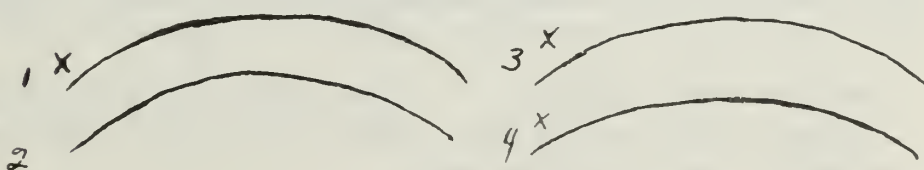
- A. Review attainments for first grade. The standard set for the first grade should be raised until the following attainments may be achieved in the second grade:
1. Ability to sing and read most of the songs in the second-year text used: by note, using a natural tone, rhythmically correct, in tune, and with fine interpretation
 2. Ability of 90% of the class to sing a number of the new songs alone
 3. Reduce monotones (non-singers) to less than 5% of the class
 4. Ability to read, with syllables or numbers, easy songs in the common major keys
 5. Ability to make rhythmic response, to respond to accent in music, and to tap the beats while sight-reading songs
 6. Ability to recognize standard compositions heard during year

GRADE THREE**I. Specific Aims**

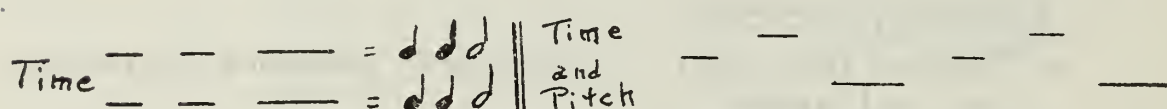
- A. Continue the development of appreciation, rhythm, creative work, rote singing, correction of monotones, staff notations, individual singing, "sol-fa" syllables; and continue study of instruments
- B. Continue development of sight-singing
- C. To develop ability to recognize a few of the leading composers

II. Procedures

- A. Continue procedures of previous grades
- B. Continue teaching note values through the eye
 - 1. Suggested procedures
 - a. Teacher puts song on board with notations on proper lines and spaces
 - b. Have children sing the song with words
 - c. Teacher then asks children to read the words in the same time as they sing and then to observe the notes as they do so; she then asks them to note what happened at end of the first phrase
 - d. Pupils respond that they waited before they began the next phrase
 - e. Teacher then makes the statement that the open note at the end of each of the four spaces indicates that the tone should be held before going on. This is called a half-note. All the others that move steadily forward are called quarter-notes.
 - f. Teacher then asks if pupils find any half-notes in the fifth phrase
- C. Sight-singing carried on as a continuation of the study of "sol-fa" syllables in Grade Two
 - 1. Introduction of the phrase (brings in ear training)
 - a. Teacher has the children sing while she draws the phrase curves on the blackboard
 - b. As the children sing the song again, the teacher numbers the phrase curves

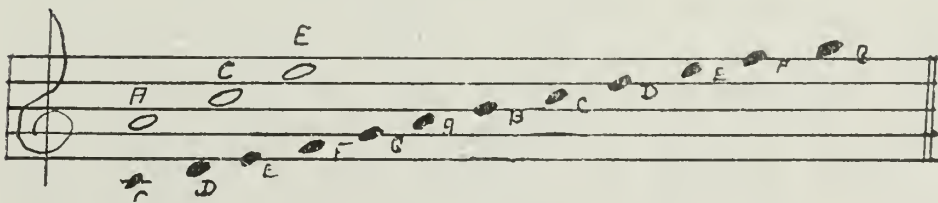


- c. Teacher sings the song with "la" and the children listen for like phrase and notice those phrases which are not alike
 - d. Children note that the "sol-fa" syllables are the same in those phrases which sound alike (the teacher sings the song with these syllables first)
 - e. Alternate singing the phrases
 - (1) Teacher and pupils
 - (2) Divide the class and have each part sing phrases
 - (3) Finally have individuals sing the phrases
2. Introduction of time duration and tone variation
- a. The children sing while the teacher marks the time duration on the board:



- b. Then have the children tap or clap as they sing the song
 - c. As the children sing, the teacher moves her hand up and down with the melody
 - d. As they sing, both teacher and pupils move their hands as the melody descends and ascends
 - e. Combine duration and pitch on the board
 - (1) Children sing while the teacher marks both pitch and duration on the board
 - (2) The third and fourth steps of "2" may be included here
 - (3) Another way to get children to understand the way a melody moves is to place a mark on the black-board, representing a certain tune, and as the teacher sings the children tell whether the melody is above or below the mark
3. A suggested procedure (This should take several class sessions to cover—a week or more if necessary. Do not hurry the procedure beyond the pupil's ability.)
- a. Song chart on the wall at the beginning of class and the songs to be used written on the board or printed on song charts with notes only
 - b. Teacher then explains to pupils that this is a picture of a song, after which she sings the song with neutral syllables, or hums the song

- c. After the pupils recognize the song, they sing it with syllables they have formerly learned by rote
 - d. Pupils sing the song through several times and the teacher taps under each note the manner she wishes them to adopt. The motion should be a free rhythmic movement of the whole forearm with finger pointing.
 - e. Teacher asks how many "do's" were sung in the second verse. She then leads the pupils to discover which line or space is "do" and where "mi" and "sol" are found.
 - f. The teacher sings a phrase and asks the children to which part it belongs
 - g. Teacher calls attention to the number of taps used in the song. In the final pattern-song all notes should be of the same value, preferably quarter-notes. As the half-note is added in later songs, it must be explained as needing two taps. In this connection, the measures may be explained as holding four taps, with the first one strongest. Later, the two- and three-beat measures may be treated.
- D. Begin the study of composers—Mozart, Mendelssohn, Bach, Haydn
1. Suggested procedure
 - a. Have children carry on a mythical interview with the composer when he was at the same age level as the children
 - b. Dramatize some incidents in the life of the composer
- E. Teach letter-names of lines and spaces
1. Suggested procedure
 - a. Put the following example on the board and explain that letter names run from "a" to "g" and then begin with "a" again. Then have pupils place the notes listed below on the staff. Give as much drill in this as is necessary, until the pupils can identify accurately all the lines and spaces.



III. Attainments

- A. Review and continue aims and attainments of preceding grades
- B. Class should be able to sing all songs contained in text, 90% to sing a number of songs alone
- C. Eliminate monotones
- D. Complete the understanding of the following theory problems: staff, clef, tie, slur, pause, and the letter-names of lines and spaces
- E. Approximately one-fourth of the class should be able to sight-read alone as well as the class can sight-read as a whole
- F. Class should be able to recognize by eye or by ear, intervals and figures; to take simple dictation exercises of a few tones
- G. Class should be able to recognize ten to fifteen of the standard compositions heard during the year; to name the composer of each and something about him
- H. Increase ability to respond to accent in music
- I. Recognize by sight and sound the following instruments: violin, trumpet (cornet), flute, piano, and clarinet

GRADE FOUR

I. Specific Aims

- A. The aims of the first three years should continue: development of appreciation, rhythm, creative work, rote singing, correction of monotones, sight-singing, staff notations, individual singing, "sol-fa" syllables, or numbers; and study of instruments and composers
- B. Provide an introductory experience in two-part music, if class is prepared
- C. Recognize and sing idiomatic tones

II. Procedures

A. Part singing

1. Rounds: Two-part music may be introduced by the singing of rounds. This, the melodic approach, affords an easy step from the singing of songs in unison to part singing. First, the complete round is learned by the entire class as a unison song. The class is then divided into two parts. In round singing the first group starts at the beginning and sings the song through as many times as there are groups, without pause between repetitions. The second group does the same thing, only it commences when the first finishes up to the point in the round marked II. Later, the class may be increased to three groups and the same procedure followed. The third group commences when the first group finishes up to the point in the round marked III. Of course, the first group finishes before the second, and the second before the third, and so on.
2. Singing scales in thirds is good additional practice
The class is divided into two groups. The first group starts with do and sings up the scale, do-re-mi, etc. The second group starts with do and sings lower, do-ti-do-re-mi, etc., on up to high do. The same procedure may be used in the descending scale, do-re. The notes should be held at least four beats and close attention should be paid by each pupil to the other part while he is singing his own.
3. Additional training may be given in singing sustained thirds (do-mi) (mi-sol), disregarding scale
4. The next step consists of teaching pupils the melody of an easy two-part song, by rote, as in a unison song. It is not necessary that the teacher say anything about the ultimate use which she expects to make of the song. After the melody is well learned, the teacher should instruct the pupils to sing the melody quite softly, at the same time listening to her singing of the second part of the song, which she strives to make blend with the tone of the

group. If the teacher is unable to sing, some member of the class or school, previously trained, may take her place. After this experience, the teacher should ask the children if they would like to learn some songs in the same way so that they will be able to sing the second part. This last procedure may be used directly after rounds have been sung, if the teacher so desires. Groups should alternate in singing the upper and lower parts.

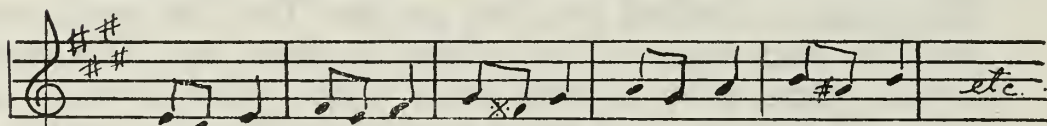
B. Further study of the following composers (see Procedure in Grade Three)

- | | |
|--------------|--------------|
| 1. Beethoven | 4. Rossini |
| 2. Schubert | 5. MacDowell |
| 3. Verdi | |

C. Introduce sharp and flat chromatics (diatonic scale is the ascending or descending tones of any key in the major or minor mode; the chromatic scale consists of the diatonic scale with the five intermediate semitones)

1. Suggested procedure

a. The first step in experiencing chromatics is by singing a rote song involving chromatics. The teacher then explains that chromatic tones are found between the diatonic scale tones and that they are represented by characters called "accidentals." The accidentals (\sharp , \flat) are placed on the board so that children may see them. She goes on to explain that the value of each natural sign is used to lower the sharpened tone. Likewise, if the pitch of a note flatted in the signature is to be raised, the natural (\natural) is used. The following exercise may be placed on the board and taught by imitation:



b. The above exercise may also be placed on the board in the key of E \flat , which will share the use of the \flat in chromatically raising the pitch of a note

III. Attainments

- See that the attainments for previous grades have been achieved
- Ability to sing either part in most of the two-part songs in the text used for this grade
- Ability to recognize by sight and sound new instruments presented in music appreciation or in listening lessons
- The study of instruments should be started by a number of pupils in this grade; pre-instrumental music should be offered to all children in the fourth grade whenever possible.

GRADE FIVE**I. Specific Aims**

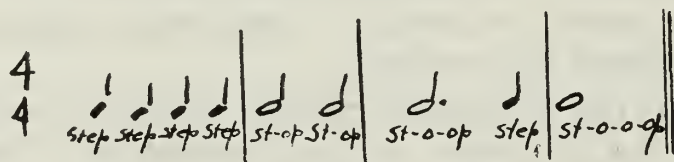
- A. Continue development of rote singing, rhythmic work, monotone correctivé work, appreciation, creative work, staff notations and "sol-fa" syllables, individual singing, two-part singing, sight-singing, study of composers, and sharp and flat chromatics
- B. Develop ability to read in a minor key
- C. Learn the time value of dotted notes
- D. Develop in the pupil a feeling for good tone blend

II. Procedures

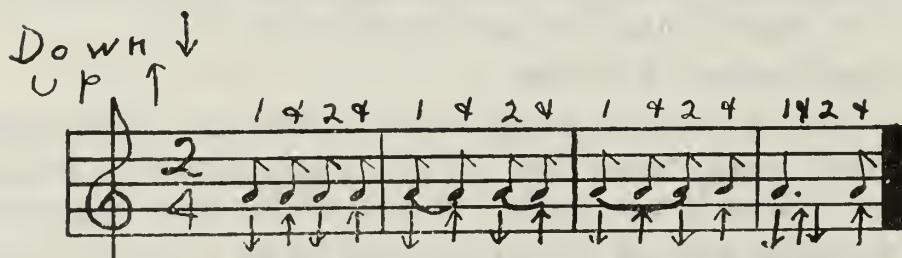
- A. Continue procedures of all previous grades with more advanced materials
- B. Introduce the minor mode
 - 1. A suggested, commonly-used procedure
 - a. First review a familiar observation song in minor key containing the problem
 - b. Then, by reviewing another familiar song in a major key, the children are led to discover the contrasts in tonality and mood between major and minor
 - c. By singing the song with "sol-fa" syllables the children are led to discover that it ends on "la;" the teacher then makes the statement that practically all minor songs end on "la"
 - d. Next the teacher selects several new songs containing the problem and again the children discover that these also end in "la" and therefore must be in the minor mode
 - e. The teacher must establish the tonality by singing the tonic chord or the first five tones of the scale before the children sing
 - f. Children are then encouraged to look for other songs in minor found in their songbooks
- C. Classification of voices
 - 1. Voices should be grouped for quality as well as for range, which may mean that a high voice may be grouped with low voices if the quality is alto rather than soprano
 - 2. Another way of classifying would be to group low voices together and high voices together, in order to unify the quality in two-part songs and to avoid strain
- D. Tone blend
 - 1. Suggested procedure to sing in scale of thirds
 - a. Divide class into groups

- b. Have one group start on do, the other on mi, and have them sing together up eight tones and return to original tones
2. Chords from any songs may be used for blending exercises
- E. Introduce the time value of dotted notes
 1. Suggested procedure

- a. Tone lengths can be illustrated by a line drawn on the board with a corresponding whole note under it. As the line is divided the notes of different value may be placed in the proper place.
- b. The dotted half-note may be taught by tying the first three-quarter notes of a measure and then replacing them by the dotted half after the class has sung the ties. Explain that a dot after a note adds one-half the time value of the preceding note. Eurythmics should be taught here by stepping off time value of note.



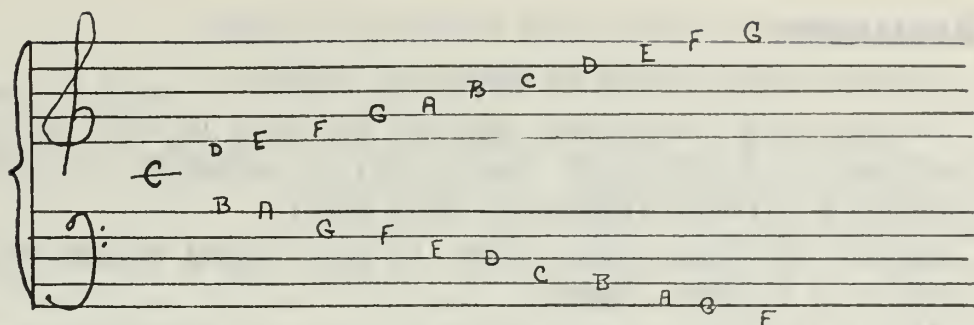
- c. The eighth-note may be taught by comparing two eighth-notes to one quarter-note in a diagram. Tell the class that since one-half of one-quarter is one-eighth, if the quarter-note stands for a one-beat tone, there will be two eighth-notes to a beat. Place on the board one measure of quarter-notes followed by one of eighth-notes and teach them by imitation.
- d. The dotted quarter-note followed by an eighth-note may be taught by placing the exercise illustrated below on the board and teaching it by imitation. Then erase the ties and substitute the dotted quarter note. The class will sing the exercise while the teacher taps the time.



- F. Continue study of the following additional composers: Brahms, Grieg, Handel, Schumann, Tschaikowsky, Gounod, Offenbach
- G. Teach additional musical terms with meanings as they occur in the songs studied or sung

III. Attainments

- A. Continue to review attainments for previous grades
- B. Ability to sing at sight, by syllables or words, simple two-part songs
- C. Complete understanding of all music fundamentals and symbols presented in the previous grades; an ability to find do; and naming key signatures of the nine common keys
- D. Ability to recognize by eye and ear all the instruments of the band and orchestra
- E. An understanding of "pure," descriptive, and program music
- F. Study of orchestral instruments by a number of the pupils



- e. Drill on note recognition in the bass clef by having the pupils call names of notes or sing the tone as teacher points. Introduce songs with simple bass part.

C. To begin three-part singing:

1. Procedures for three-part singing are similar to those given for two-part singing
 - a. The class is divided into three groups
 - (1) One group may sing low do, and while this group sings, the next group may sing mi, and the third group may sing sol—thus singing the triad do-mi-sol. (or 1—3—5)
 - b. Care should be taken that each group has the correct pitch and sustains it. As the class increases in ability, a succession of simple syllables, dictated by the teacher or written on the board, may be sung by the individual groups. As an example, the first group might sing do, do, do, ti, do; the second group, mi, fa, mi, re, mi, etc.
 - c. Groups should listen to each other occasionally
 - d. Other similar exercises should be given
- D. Teach additional music terms with meanings as they occur in songs used
- E. Continue study of additional composers: Chopin, Humperdink, Stephen Foster, Johann Strauss, Anton Dvorak
- F. Develop appreciation through listening
 1. Suggested procedure
 - a. The teacher first chooses some material because of its relation to a topic being studied
 - b. The lesson is introduced through a suitable approach to the familiar topic
 - c. Next the music is played either by the teacher or by some older pupil
 - d. The relation of the music to the topic is then discussed
 - e. The music is again played and the children asked to notice specific things such as themes, mood, rhythm, style, instruments, story or description
 - f. These procedures are then applied to other compositions

III. Attainments

- A. Review attainments for previous grades
- B. Groups and individuals should be able to sing in unison, two-part and three-part songs with a pleasing natural tone, accurate rhythm, harmony, and pitch
- C. Ability of 75% of the class to sing these songs alone or with one or two others
- D. Ability of 50% of the class to sing at sight the material which the class can sing as a whole
- E. Ability of 50% of the class to recognize intervals of a third, fourth, fifth, or sixth when teacher sings with neutral syllables. Class should be able to respond with the sol-fa syllables or by writing the notes on the staff.
- F. Ability to recognize the familiar dance forms (march, minuet, waltz, gavotte, and mazurka)
- G. Understanding of opera and oratorio (ability to recognize main themes from one well-known opera)
- H. Complete understanding of folk music (the influence upon the lives of the people where it originated)
- I. Ability to identify, whenever they are heard, compositions studied during the year—name of composer and title
- J. Continued study of musical instruments

GRADES SEVEN AND EIGHT

I. Specific Aims

- A. Continue aims of the previous grades: note-singing, rhythm work, corrective monotone work, appreciation, creative work, staff notations, sol-fa syllables, individual singing, study of composers, sharp and flat chromatics, reading in major and minor keys, value of dotted notes, tone blending, and three-part singing
- B. Start four-part singing
- C. Develop the changing voice without strain
- D. Develop ability to perform in public
- E. Present an approach to harmony and theory

II. Procedures

- A. Introduce four-part singing. Use same procedure as outlined for two-part singing in Grade Four, if desired (the difference here will be that the group is divided into four sections instead of two)
- B. Concentrate on a cappella sight singing in these grades
- C. Develop poise and confidence of pupils in public performances through activities of class amateur hours (the entire class or school should participate)
- D. Study additional composers, preferably modern composers, as the majority of other important composers have been covered in previous grades: Debussy, John Alden Carpenter, Caesar Franck, Rimsky-Korsakov, or other modern Russian composers; Grofe, Gershwin, De Rose, or other American composers
- E. Instrumental classes may be started if facilities permit, or private instrumental work may be suggested

III. The Operetta and Dramatic Music

An important project in the upper grades may be the operetta. It is one of the best motivating forces in school, and full advantage should be taken of this type of work. Cheap, trashy operettas should be avoided. The choice of the operetta will depend on the available musical and dramatic talent.

If it is a good operetta, two months could be devoted to its production; ordinarily six weeks is enough. First read it over very carefully and decide on any additions or omissions. It is often possible to replace a song in the score with a better one or with a more timely one, in a better key. Decide also about transposition of any keys. Then read carefully all the dialogue and delete any questionable jokes or long love affairs. Choose the principals carefully, on merit alone; a dependable worker is better as a choice than a more gifted but less dependable person.

Always use understudies to the principals, even if they cannot sing and may have to fill in with spoken lines. A prompter is essential. Impress the pupils that they must live their parts—this helps to overcome stage fright. Direct them to walk if they forget; this may help them to remember, or it may bring them closer to the prompter. Delegate details to committees of students and faculty members. The general director should be a musician and in charge of production.

IV. Attainments

- A. Generally, this is the period to check up and determine if all the work of the previous grades has been accomplished
- B. Specifically, there are few new attainments in these grades. Music study in these grades is a continuation of the work already done. Recognition should be given to the age of the pupils and materials to be used.

BIBLIOGRAPHY OF MUSIC TEXTBOOKS

For Use in Grades I-VIII

(Addresses of all publishers are given at the end of the Bibliography.)

**Indicates books that are the most highly recommended.

*Indicates books that are especially desirable for supplementary use.)

I. Texts (These texts are recommended for use throughout a school system)

A. For the Ungraded School

**Singing Days

**Teachers' Manual—Music Procedures for Rural Schools. Ginn & Company

*The Music Hour One-Book Course

*Teachers' Manual—Music in Rural Education } Silver Burdett & Company

*One-Book Course in Elementary Music. Wallace Publishing Company

B. For the Graded School

**Glenn, Rebmann, Leavitt, and Baker. The World of Music. Ginn & Company

Sing a Song (Kindergarten)

Play a Tune (Kindergarten)

Listen and Sing (First Grade)

Tuning Up (Second Grade)

Rhythms and Rimes (Third Grade)

Music Teaching in Kindergarten and Primary Grades (Manual, to be used with the above five books)

Songs of Many Lands (Fourth Grade)

Blending Voices (Fifth Grade)

Tunes and Harmonies (Sixth Grade)

Music Teaching in Intermediate Grades (Manual)

Piano Accompaniments for each of above books

Sing Along (Seventh Grade)

Song Parade (Eighth Grade)

- **McConathy, Birge, Miessner, Bray. The Music Hour. Silver Burdett & Company
 - The Music Hour in the Kindergarten and First Grade
 - First Book (Second Grade)
 - Second Book (Third Grade)
 - Elementary Teachers' Book (Manual for use with First and Second Books)
 - Third Book (Fourth Grade)
 - Fourth Book (Fifth Grade)
 - Intermediate Teachers' Book (Manual)
 - Fifth Book (Sixth Grade)
 - Teachers' Guide for the Fifth Book (Manual)

II. Supplementary Songbooks

A. Rote songbooks

- *Miessner. Art Song Cycles (Books I and II). Silver Burdett & Company
- Graham. Essential Songs. American Book Company
- Radcliff and Whitehead. Folk Songs and Other Songs for Children. Oliver Ditson Company
- Siebold. Happy Songs for Happy Children. G. Schirmer, Inc.
- Dann. Hollis Dann Music Course (First Year). American Book Company
- Warner. Kindergarten Book of Folk Songs. E. C. Schirmer Company
- Wiehard. Little Singers Song Book, The. C. C. Birchard Company
- Miessner and Beattie. Melodies to Play and Sing (Books One and Two). Hall & McCreary Company
- *Beatrice Krone. Our First Songs. Niel A. Kjos Company
- Rossmann. Pre-School Music. C. C. Birchard Company
- *Perkins, et al. Silver Book of Songs, The. Hall & McCreary Company
- **Riley and Gaynor. Songs of the Child World (Nos. I and II). U. Church Company
- **Davison and Surette. 140 Folk Songs. E. C. Schirmer Company

B. Songs for glee clubs and choruses

- **Christiansen and Pitts. Junior A Cappella Chorus Book. Oliver Ditson Company
- McConathy, et al. Music Highways and Byways. Silver Burdett & Company
- Glenn, et al. Songs Programs for Youth (Treasure, **Adventure, Discovery). Ginn & Company
- Hesser and Dusman. Treasure Chest of Songs. American Book Company
- *Twice 55 Community Songs for Treble Voices (The Rose Book). C. C. Birchard Company
- *Twice 55 Part Songs for Boys (The Orange Book). C. C. Birchard Company

C. Assembly and community songbooks

- **Christmas Caroler's Book in Song and Story. Hall & McCreary Company
- Everybody Sing Book. Educational Music Bureau
- Golden Book of Favorite Songs. Hall & McCreary Company
- Sing! C. C. Birchard & Company
- **Singing America. C. C. Birchard Company
- Songs We Sing. Hall & McCreary Company
- Twice 55 Plus. C. C. Birchard Company
- *New American Song Book, The. Hall & McCreary Company

III. Books for Folk Dances and Music Games

- *Sutton and Brooks. Creative Rhythms. A. S. Barnes & Company
- Ryan. Dances of Our Pioneers. A. S. Barnes & Company
- Burchenal. Folk Dances and Singing Games. G. Schirmer Company
- *Crampton. Folk Dance Book. A. S. Barnes & Company
- **Stecher and Mueller. Games and Dances. Theodore Presser Company
- Dansmore. Indian Action Songs. Theodore Presser Company
- Fletcher. Indian Games and Dances. C. C. Birchard & Company

*Driver. Music and Movement. Carl Fischer, Inc.

**Neilson and Van Hagen. Physical Education for Schools. A. S. Barnes & Company

Waterman. Rhythm Book, The. A. S. Barnes & Company

Dykema. Twice 55 Games with Music. C. C. Birchard & Company

IV. Music Appreciation

A. Texts

**Hartshorn-Leavitt. Making Friends with Music. Ginn & Company

Prelude

Progress

The Pilot (Teachers Book, covering Prelude and Progress)

At Home and Abroad

New Horizons

The Mentor (Teachers Book for New Horizons and At Home and Abroad)

**Glenn, DeForest, Lowry. Music Appreciation for Every Child. Silver Burdett & Company

Primary Manual

Intermediate Manual

Junior High School Manual

*McGhee. People and Music. Allyn and Bacon

B. Supplementary materials

**Kinscella. The Kinscella Readers. University Publishing Company

Storyland (Grade 2)

The Man in the Drum (Grade 3)

Folk Tales from Many Lands (Grade 4)

Conrad's Magic Flight (Grade 5)

Tales of Olden Days (Grade 6)

Around the World in Story (Grade 7)

History Sings (Grades 6, 7, 8)

*Cross. Music Stories for Girls and Boys. Ginn & Company

Crawford. Pictured Lives of Great Musicians. C. C. Birchard

Barbour and Freeman. A Story of Music. C. C. Birchard Company

*Buchanan. How Man Made Music. Follett Publishing Company

Educational Catalog for Elementary Schools. R. C. A. Victor Company

BOOKS FOR THE TEACHER

A. Methods of teaching and general information

Mason. Appreciation of Music, The. H. W. Gray Company

*Murray and Bathurst. Creative Ways for Children's Programs. Silver Burdett & Company

*Gehrken. Essentials in Conducting. Oliver Ditson Company

Vincent Jones. Exploring Music. C. C. Birchard Company

Perkins. How to Teach Music to Children. Hall & McCreary Company

*Norman. Instrumental Music in the Public Schools. Oliver Ditson Company

Gehrken. Introduction to School Music Teaching, An. C. C. Birchard

Earhart. Meaning and Teaching of Music, The. Witmark Educational Publications

**Ennis Davis. More Than a Pitch-Pipe. C. C. Birchard Company

*Pitts. Music Integration in the Junior High School. C. C. Birchard

*Gehrken. Music in the Junior High School. C. C. Birchard

**Gehrken. Music in the Grade Schools. C. C. Birchard Company

**Cundiff and Dykema. New School Music Handbook. C. C. Birchard Company

Umfleet. School Operettas and Their Production. C. C. Birchard Company

Dickinson. Study of the History of Music. Charles Scribner Sons

PUBLISHERS AND MERCHANTISERS

American Book Company (B) 121 Second St., San Francisco, California
 Associated Music Publishers (P) 25 W. 45th St., New York City
 Augsburg Publishing Company (P) 425 S. 4th St., Minneapolis, Minnesota
 Irving Berlin, Inc. (P) 799 Seventh Avenue, New York City
 C. C. Birchard & Co. (B-P) 221 Columbus Ave., Boston, Massachusetts
 Buescher Band Instrument Co. (I) Elkhart, Indiana
 John Church Company (P) Philadelphia, Pennsylvania
 M. M. Cole Publishing Co. (P) 2611 Indiana Ave., Chicago, Illinois
 C. G. Conn, Ltd., (I) Elkhart, Indiana
 Oliver Ditson Co. (B-P) 1712 Chestnut St., Philadelphia, Pennsylvania
 Educational Music Bureau (B-I-M-P) 30 E. Adams St., Chicago, Illinois
 Eldridge Entertainment House (M) 412 W. Sixth St., Franklin, Ohio
 Fillmore Music House (P) 528 Elm St., Cincinnati, Ohio
 Carl Fischer, Inc. (B-P) Los Angeles, California
 J. Fischer and Bro. (P) 119 W. 40 St., New York City
 H. T. Fitzsimons Co. (P) 23 E. Jackson Blvd., Chicago, Illinois
 Sam Fox Publishing Co. (P) 1250 Sixth Ave., New York City
 Gamble Hinged Music Co. (B-I-M-P) 218 S. Wabash, Chicago, Illinois
 Ginn & Company (B) 45 Second St., San Francisco, California
 Fred Gretsch Mfg. Co. (I) 529 S. Wabash Ave., Chicago, Illinois
 Hall & McCreary Co. (P) 434 S. Wabash Ave., Chicago, Illinois
 Hinds, Hayden & Eldredge (B) 5 Union Sq., New York City
 Raymond A. Hoffman Co. (P) 509 S. Wabash Ave., Chicago, Illinois
 Jenkins Music Company (M) 1217 Walnut St., Kansas City, Missouri
 Neil A. Kjos Music Co. (P) 14 W. Lake St., Chicago, Illinois
 Lyon & Healy, Inc. (P-I) 243 S. Wabash Ave., Chicago, Illinois
 Lyons Band Instrument Company (I) 14 W. Lake St., Chicago, Illinois
 Pan American Band Instrument Co. (I) Elkhart, Indiana
 Paysin Mfg. Co. (Collapsible chorus stands) Hebron, Nebraska
 Theodore Presser Co. (P) 1712 Chestnut St., Philadelphia, Pennsylvania
 RCA Mfg. Co. (Phonograph, Sound Recording) Camden, New Jersey
 Rubank, Inc. (P) Chicago, Illinois
 Saxette Company (I) Delaware, Ohio
 E. C. Schirmer Co. (P) Boston, Massachusetts
 G. Schirmer, Inc. (P) 3 E. 43rd St., New York City
 Paul A. Schmitt Music Company (P-M) 88 S. Tenth St., Minneapolis, Minnesota
 Silver Burdett Co. (B-P) 149 New Montgomery St., San Francisco, California
 Sims Visual Music Co. (Song Slides) Quincy, Illinois
 Clayton F. Summy Co. (P) 429 S. Wabash Ave., Chicago, Illinois
 Willis Music Co. (P) 137 W. 4th St., Cincinnati, Ohio
 M. Witmark & Sons (P) RCA Bldg., Rockefeller Center, New York City

KEY TO SERVICES

B—Textbooks and songbooks

I—Instruments

M—Miscellaneous

P—Sheet music and other publications

COURSE OF STUDY IN ART

General Suggestions

I. Introductory Statement

With the widespread use of the unit system of teaching, it has become necessary to outline standards of accomplishment in art, for each grade, so that teachers in the rural schools, as well as those in the town and city systems, will have parallel guides. By what direct or indirect means these standards will be accomplished remains the individual problem of each classroom teacher.

This course is the outgrowth of felt needs on the part of dozens of our Montana teachers as well as of hundreds of our Montana school children. It is hoped that this course proves the "art answer" for pupils, teachers, principals, and superintendents.

II. The Teacher

A. Should have knowledge of:

1. Elements of design
2. Art principles
3. Aims for teaching art
4. Many media and their possibilities
5. How much to teach

B. Should give evidence of good classroom management by:

1. Gaining the best possible classroom organization
2. Gaining best possible discipline
3. Having materials immediately at hand
4. Gaining confidence of each member of the class
5. Directing children to use effective materials

C. Should deal with art subject matter in such a way that it:

1. Comes from within the child after he has been given a general background by wide reading and discussion
2. Fits the needs of the child and his interests
3. Attains the aims set forth

D. Should have a true picture of her lesson by:

1. Being sure of her aims
2. Being aware of the children's aims
3. Preparing the lesson carefully with plenty of research
4. Giving sufficient lead-up to the lesson

E. Should have an appreciation for:

1. The beauty in nature
2. Fine works of art
3. Creative expression on the part of the children

F. Should have sufficient enthusiasm in her teaching to:

1. Encourage children to do their best
2. Create genuine interest in art
3. Stimulate independent work on the part of the child

G. Should possess the understanding of children that enables her to:

1. Deal with the "problem" child and the "retarded" child
2. Keep the "gifted" child working to capacity
3. Know when the lesson saturation point has been reached

III. Criticism of Work

Criticisms by the class and by the teacher are necessary to:

- A. Help the child see strong points and defects that were not in evidence at the time of creating
- B. Discover and encourage art aptitude along various lines
- C. Encourage a child to carry a piece of work through to a finish
- D. Help the child begin the appreciation of exhibits
- E. Aid the critic in thinking for himself
- F. Help the child see the lesson in perspective
- G. Help the child evaluate his own work relatively

IV. What to Look For in Pupil's Work

A. Originality

1. How original is it? Does it come from the child?
2. What "feeling" does it portray?

B. Content

1. How rich is content?
2. Does it pin itself to a story element?
(Story may come from within the child)

C. Design

1. Is there a center of interest?
2. Is the space well filled?
3. Is there a pleasing dark and light pattern?
4. Is the color "clear" and representative of the story?
5. Are the values balanced?
6. Is there unity in design, pattern, and color?
7. Do figures have life?

D. Growth

1. Is creative and appreciative growth evident?
2. Is there technical and manual improvement?

PRIMARY COURSE

I. Introduction

The problem before the primary art teacher is three-fold:

- A. First of all, each child must be encouraged to work individually, and still he must progress to meet some standard of accomplishment, in order that he will not feel his work is inferior when group discussions are held. At the same time, the child who works quickly and well and has fewer problems to solve must not be hampered or held back. Neither must his work be emphasized as a standard of accomplishment, to the discouragement of the slower pupils.
- B. Secondly, great care must be used to preserve the childlike quality inherent in spontaneous individual work that tells the story the child artist wishes to tell. Adult standards must not be imposed. No touching up by the teacher is possible if this quality is to survive.
- C. The teacher's third problem is to ensure that children leaving the third grade will go on to the intermediate work with their love for the drawing period unimpaired and with an eagerness to tackle the harder work because they have a foundation that gives confidence that they can succeed.

This primary course of study is submitted as a standard of achievement. Each teacher must interpret the course in the light of the problems she must face with each new class. Great latitude is given as to how the results may be obtained.

II. Objectives

- A. Children should learn to think in terms of a story, about "one main thing" instead of in terms of many and varied ideas in one drawing
- B. Children should express themselves with genuine enthusiasm
- C. Children should begin to rely upon themselves in their thinking and doing
- D. Children should ask for help when they need it
- E. Children should exercise choice in color
- F. Children's drawings should fill the space
- G. Children should learn to cooperate with the group
- H. Children should assist in criticism
- I. Children should draw and paint for the pure joy of expression
- J. Children's work must have life in contrast to stiff execution
- K. Children should be permitted to experiment with many media

III. Subject Matter and Procedure

- A. Discover the child's interest by allowing him to draw what he chooses; enlarge upon these interests
- B. Give the child plenty of informational background
- C. Allow him the delights of bright colors
- D. Give him the opportunity to use many materials
- E. Include appreciation lessons whenever the opportunity presents itself
- F. Allow seasonal drawings whenever feasible
- G. Encourage one idea in a picture (center of interest)
- H. Create a colorful and attractive environment
- I. Bring beautiful objects into the classroom
- J. Stimulate children to better endeavor by displaying their work well and often
- K. Obtain much of the art subject matter from the environment of school and home
- L. Introduce the child to various art media; have the material close at hand
- M. Encourage large drawings and free expression
- N. Give the children a liking for art by letting them help to plan the activities (the teacher should be a guide rather than a taskmaster or dictator)
- O. Bring in representative art work done in other schools
- P. Find good points in all art work
- Q. Find subjects for art lessons in the social studies units

GRADE ONE**I. Color Study**

- A. Be able to recognize primary colors (red-yellow-blue)
- B. Be able to recognize secondary colors (violet-orange-green)
- C. Learn how to compose the secondary colors
- D. Make frequent use of opaque water colors, prepared paint, dry colors to be mixed, finger paint, and large colored chalks

II. Freehand Drawing

- A. Original expression is stressed rather than techniques
- B. The drawings must tell a story (to the child)
- C. Only one story should be told on a page
- D. Child should have a choice in subject matter
- E. Encourage observation to give subject matter background
- F. Encourage large drawings, as well as the 9" x 12" size

III. Design:

Apply art principles without including the terms in the vocabulary

- A. Have the thing about which you are talking large
- B. If needed, do border work which includes repetition and rhythm
- C. Have about as much dark on one side of the picture as on the other

IV. Figure Drawing

- A. Do not hold child too closely to proportions of figures
- B. Give him help with proportions of figures only when he asks for it
- C. Encourage him to include figures in his drawings
- D. Encourage figure action whenever possible

V. Lettering

- A. Not a great deal is done with lettering in the first grade
- B. Keep any lettering down to a minimum of letters

VI. Crafts

- A. In this grade much time is spent on clay work
 - 1. Do not wear the child out with adult standard of shapes
 - 2. Let the child experiment again and again with clay
 - 3. Give the child experiences to help him recognize what is good clay form
 - 4. Let child interests direct the subject matter for modeling
- B. Wood work (very simple) may often be introduced in correlation with units of work
- C. Cloth throws—very simple design may be applied with wax crayon
- D. Paper and cardboard construction
- E. Holiday decorations and sand-table projects may be constructed

VII. Appreciation

- A. Begin showing pictures of a nature that appeals to children
- B. Bring in objects that are lovely in line and color (many hand-made pottery shapes are fine)
- C. Children should be given the opportunity to report on observations relating to color and form. Through this type of recitation the teacher is able to help guide and develop the child's appreciation.

VIII. Mediums:

(Suggestions only): Clay, charcoal, watercolor, finger paints, wax and chalk crayon, paper, pencil, scissors, paste, and paint brushes

GRADE TWO

I. Color Study (not to be handled formally till need arises)

- A. Be able to recognize
 - 1. Primaries and secondaries
 - 2. Intermediates (yg, bg, bv, rv, vo, yo)
- B. Teach what should be done to a principal color to make an intermediate when the need for it arises

II. Freehand Drawing

- A. The child must be allowed free expression. The art stories are now beginning to take definite form. Through the guidance of the teacher, the criticisms of the children are beginning to call for large drawing, one main idea, and the picture filling the space.
- B. For subject matter the child may use stories from: library books, class readers, poems, life, and the imagination (the social science units are rich in subjects)

III. Design

- A. Design may be applied to all work, whether it be abstract design, applied design, or construction problems
- B. A center of interest in drawing may now be encouraged (main idea should be large); color, as well as size of drawing, shows the location of the center of interest
- C. An all-over pattern of a very simple design may be carried out

IV. Picture Drawing

- A. Continue to encourage the inclusion of figures in drawings—action figures, if possible
- B. Begin reducing head sizes
- C. Have children from the class pose when necessary
- D. Keep the child-like quality in the drawings
- E. Keep drawings on the second-grade level (the outstanding problem is to get away from adult standards)

V. Lettering

- A. The children should learn to cut and mount a simple block alphabet (upper case). (By this time there should be felt needs for many of the letters.)
- B. Keep thickness of letter lines the same
- C. Measure spacing between letters with the eye and not with a ruler
- D. Make application of letter forms in simple posters and signs (these should be pupil-planned and should be used)
- E. Pleasing forms and good letter arrangement are difficult to get; avoid words that are too long

VI. Crafts

- A. Construction
- B. Booklets with covers designed in finger paints, using either fingers or cardboard combs to work out the designs (try for freedom of movement)
- C. Hangings (cloth)
 - 1. Crayonex designs
 - 2. Painted designs (work for same principles as in illustration)
- D. Clay work (realize more form than in first grade)
- E. Weaving on cardboard looms

VII. Appreciation

- A. Children's love of animals
 - 1. Interesting pictures of animals
 - 2. Pottery and bronze animals for third dimension
- B. Many homes have very lovely pieces of textiles, pictures, and designs that should be brought into the classroom sometime during the year (these art pieces do not have to be tied to an immediate unit of work)
- C. Any pictures, modern or otherwise, that will develop appreciation should be utilized

VIII. Mediums:

Construction paper, wax crayons, chalk, charcoal, water color, finger paints, clay, wrapping paper, water-color paper, newsprint, paintbrush, scissors, pencil, and any other medium that will help develop a unit of work (suggestions only)

GRADE THREE

I. Color Study

- A. Review color work of previous grades
- B. Be able to distinguish between a bright and dull color
- C. Learn how to gray a bright color
- D. Learn how to mix brown

II. Freehand Drawing

- A. Continue to encourage free expression
- B. Develop illustration (a small booklet of story illustrations might be encouraged)
- C. Murals for group work
 - 1. Subject matter may come from social science units
 - 2. Discussion should result in unity
 - 3. Perspective of one child's drawing should coordinate with another's
 - 4. Figure forms become unified
 - 5. Colors must relate to subject matter as well as to the other parts of the design

III. Design

- A. Emphasize design principles throughout the year
- B. Consider line directions (have the lines lead toward the center of interest rather than away from it)
- C. Feel pattern a little more definitely
- D. Discuss clothing (for design)

IV. Figure Drawing

- A. If the children have been including figures in murals or in illustrations, they thoroughly enjoy "time out" for the drawing of classmates
- B. Let the children decide upon the pose, such as: girl with doll, marble player (this type of lesson is tied up with the greatest unit of all—Life)
- C. Encourage action figures in illustrations
- D. Learn relative location of eyes, nose, mouth and ears
- E. Never touch up a child's drawing of a figure (guide and direct him so he may do the work by himself)

Note: Teachers in the past have been so afraid of public opinion that they have imposed adult standards on child work and have touched it up to make a good showing at exhibits. Teachers should recognize the beauty of child-like quality in children's work.

V. Lettering

- A. Simple posters, with illustrations suggesting the wording, may be made—they may be of cut paper (be sure child sees reason for doing)
- B. Consider relationship of spacing of design to lettering
- C. Consider background spaces as well as foreground
- D. Let children make signs needed for the classroom

VI. Crafts

(Suggestions only)

- A. Construct cardboard, cork, or wood portfolio for art work
- B. Apply design to above
- C. Simple beadwork on looms:
 - 1. Will teach designing, using squared paper design first
 - 2. Will encourage some choice in color
 - 3. Will teach children to follow directions
- D. Make frame for a picture out of molding, with suitable finish
- E. Continue with clay (work for better form)

VII. Appreciation

- A. An exhibit from another school, to give the children confidence and a realization of what children are doing elsewhere
- B. Talks by people outside the immediate classrooms to give added appreciation of objects of art
 - 1. Talks by children who have visited scenic spots or brought back bits of art work (watch carefully that the pieces of work brought in are truly art)
 - 2. Talks by adults
- C. Work done by children in the same grade the year before or by children in the upper grades
- D. Study and discussion of a few American mural prints
- E. Objects made by peoples studied in the social science units

VIII. Mediums

(Suggestions only)

Chalk	Water color and finger paints
Clay	Materials for crafts
Charcoal	Coping saws
Wax crayon	Sponge rubber and rubber cement
Paper	Plywood
Scissors	Any other materials necessary for successful
Paste	results on the unit work

INTERMEDIATE COURSE OF STUDY

I. Introduction

Since art objectives are similar for all grades, there should be no definite line drawn between the primary and intermediate departments. Such an apparent division has been made here to satisfy the many urgent requests on the part of Montana teachers who teach in various grade situations. It is of primary importance that the intermediate-grade teacher be thoroughly familiar with age-level emphasis for Grades One, Two, and Three.

The teacher's responsibility is to know each child and develop his art interests and appreciations to the highest point attainable. To do this she must encourage many art experiences through many avenues of approach.

The child should be encouraged to continue with creative self-expression and self-direction. He should never have adult standards or perfect techniques placed before him as a criterion for his own work. As long as he continues to think and to work, he should never be led to believe that his efforts (results) are inferior. As soon as a process becomes excessively labored, that is the signal for the teacher to find out what is wrong.

By the time the child has reached the fourth grade he is working with intelligent confidence, and he has learned to ask for technical help when the need arises. Over-emphasis on technique has often resulted in decided handicaps.

If the children are sincere, eager, industrious, curious, independent, and happy in their work, then they are developing desirable personalities and appreciations, and art immediately becomes a vital part of the school curriculum.

II. Objectives

- A. Continue to encourage free expression
- B. Continue to guide and direct the child; do not dictate
- C. Help a child when he expresses a felt need
- D. Allow the child to develop as rapidly as he can
- E. Encourage illustration of sources, such as: literature, environment, imagination, and current news
- F. Teach more about color, design, figure drawing, illustration, lettering and crafts, construction, and murals
- G. Teach care of art materials
- H. Encourage experimenting with many media, cooperation and acceptance of art ideas of other members of the group
- I. Develop a finer appreciation of art in general

GRADE FOUR**I. Color Study**

(Not to be handled formally unless need arises)

- A. Review previous color study
- B. Be able to distinguish between tints and shades
- C. Be able to distinguish between warm and cool colors
- D. Be able to mix intermediate and grayed colors
- E. Make application of the above

II. Freehand Drawing

- A. Continue to encourage free expression
- B. Avoid cutting objects in two with horizontal lines or other lines in the picture
- C. Clear up felt needs in perspective
- D. Explain relative size of near and far objects
- E. Afford opportunity to illustrate stories, poems, and experiences (a roll of wrapping paper might be made into a movie art film, using subjects from the social science unit)

III. Design

- A. Continue to emphasize design principles (be sure designs have occult balance)
- B. Try out abstract or simplified designs
- C. Try for more dark than light in designs

IV. Figure Drawing

- A. Keep in mind that figure study should be carried over more and more into other drawings, unless the effort is to concentrate on figure study in itself
- B. Try for more than stiff formal poses of animals
- C. Consider positions (Suggestion: Soap carving may be begun in fourth grade. Use soap that doesn't chip. This medium will not endanger fingers.)
- D. Have children pose for positions in murals
- E. Encourage the use of figures (from now on children will begin to have a complex about figures unless the drawing of them is presented from different angles)

V. Lettering

- A. Consider various alphabet styles and carry out words from these alphabets; letter things that will be used
- B. Work with both upper- and lower-case letters
- C. Learn to use lettered name to sign drawings
- D. Make simple monograms for portfolios and booklet covers
- E. Letter greeting cards to encourage original letter styles

VI. Crafts

- A. The children are old enough to do craft projects for gifts
 - 1. Sponge figures
 - 2. Soap carving
 - 3. Clay modeling
 - 4. Eraser, potato, and stick printing on cloth
 - 5. Linoleum (if class is ready for linoleum tools)
- B. Applied problems (many people who teach applied problems think that the process is the important thing. Without a good design the process is unimportant.)
- C. In the crafts, begin to consider individual interests. Unless the class is too large in numbers, the children should not all have to work on the same thing at the same time. However, if they all desire to work on the same problem, they should be allowed that privilege.

VII. Appreciation

- A. Pictures appropriate for the grade should be discussed (the important thing is the child's reaction to the picture under discussion)
- B. Art appreciation should never be a pressure type of thing (in appreciation, much depends upon the teacher)
- C. Pictures of Madonnas at Christmastime are most appropriate for reference
- D. Appreciation should also include classroom arrangement and home decoration
- E. When a child reacts either favorably or unfavorably to objects, there is appreciation. When a child does not react at all, there is cause for worry. Many fine appreciations develop through carefully guided units of work.

VIII. Mediums

- A. Clay, chalk, charcoal, water colors, soap, craft materials, paper (manila, wrapping newsprint, bogus, poster, construction), scissors, or any material necessary for carrying out a unit of work (suggestions only)

GRADE FIVE**I. Color Study**

(Do not handle formally unless the need arises)

- A. Review all previous color study
- B. If difficulties in values present themselves, work out simple value scale by application
- C. Apply monochromatic schemes, working for value and intensity; learn how to gray a color

II. Freehand Drawing and Painting

- A. Work out illustrations, applying the principles of design. Color, as well as drawing, determines center of interest and opposition. True opposition in color is found in the complementary combinations.
- B. Use more gray colors
- C. Allow much brush work in intermediate grades; keep work free, relaxed, and easy (many drawings, directed, are much better for the children, than a few worked-over pieces)
- D. Give encouragement, to obtain results

III. Design

- A. Continue to stress the principles of design. Pattern begins to appear in drawings and abstract design. Children are beginning to sense pattern.
- B. Look for pattern in class discussion (all-over designs are decidedly effective now)
- C. A suggestion: linoleum block printing makes an interesting project. This has not been suggested earlier because of dangers of cutting fingers. Use fresh linoleum and warm it, if it seems difficult to cut.

IV. Figure Drawing

- A. Help pupils who need help and ask for it. The children are very easily discouraged unless the teacher intelligently guides them so their courage stays on top.
- B. Present work from interesting angles
- C. Use large pose drawings to get proportion
- D. Begin outdoor sketching (include sketching of figures)

V. Lettering of Posters and Signs

- A. Relate style of lettering to work
- B. Choose suitable colors if lettering is to be colored

VI. Crafts

- A. Design has been developed throughout the grades for application to various types of crafts
 - 1. Beadwork: work out original designs on squared paper
 - 2. Metal etchings, dry point, acid, crayon and celluloid plate
 - 3. Leather tooling
- B. New crafts are encouraged

VII. Appreciation

- A. Bring in an exhibit of etchings, if possible
- B. Broaden knowledge concerning modern artists
- C. Deepen the appreciation of the fine things in life: nature, interiors, and individual art objects

VIII. Mediums:

Opaque and transparent paint, cante' crayons, charcoal, colored pencils, wax crayons, paper suitable for application of above, chalk (crayons), raffia and reed, lettering pens, wood, and artgum for block printing (suggestions only)

GRADE SIX**I. Color Study**

(Do not handle formally unless the need arises)

- A. Children should be familiar with all the color requirements for the preceding grades
- B. Allow for plenty of experience in color expression
- C. Teach complementary colors and neighboring colors
- D. Make application of complementary and analagous color schemes; children should become familiar with triads

II. Freehand Drawing and Painting

- A. Check on as many "felt needs" as possible
- B. Do freehand perspective drawing of shacks. Give background for perspective without making it too set and mechanical. Child should know the direction a line should go and why (consider paths, streets, and streams).
- C. Consider circular, angular, and parallel perspective. (Thorough study comes in Junior High School.) Work out some illustrations with transparent water color.
- D. Plan some pictures in three values with the values repeated. Carry out such a value plan in color. Develop freehand drawing through group activity.

III. Design

- A. Review preceding principles of design in social science units or individual lesson
- B. Show the child how to make application of principles of transition. Transition is the element that harmonizes one unlike thing with another. It may be the softening of a sharp angle formed by oppositional lines. It may be a color go-between that forms a more complete harmony.
- C. Apply the principle of opposition
- D. Carry out abstract designs
- E. Continue working for pattern

IV. Figure Drawing

- A. Children may use three-quarter view rather than side and full face (three-quarter view is less stiff and more interesting)
- B. Murals give opportunity for figure study
- C. Drawings from the early life of the child, showing the child and other figures, are interesting
- D. Some work on the drawing of individual hands and feet is timely if there is a felt need
- E. In pose drawing, interest may be added by including hats, and changing costumes

V. Lettering

- A. The children should know more than one style of alphabet (they should work out an alphabet of their own design)
- B. Combine upper- and lower-case letters (exhibit signs and lettered explanations may be made)
- C. The lettering pen should be used with fair accuracy
- D. Original poems or paragraphs may be lettered (a decorative introductory upper-case letter may be included)
 1. Have the illustration in line formation in the background. The foreground letters could be filled in to have carrying quality.
 2. Make posters which are "different," to attract the public

VI. Crafts

- A. There should be a choice of subjects and materials
- B. Apply principles of design to all craft problems. The type of paint chosen should fit the use of the object.
 1. Oil
 2. Opaque water color
 3. Transparent water color
 4. India ink
 5. Printing ink
 6. Dyes
- C. Make plaster-of-Paris carvings (this continues the study of third dimension with a new medium)
 1. Form plaster-of-Paris blocks in cardboard molds
 2. Use knife for carving
- D. Basswood placques are suggested for wood carving

VII. Appreciation

The developing of sincere reaction—an every-minute process

- A. Have children arrange pleasing bouquets of flowers
- B. Discuss some of the modern artists and also pre-modern, if there is a relationship between the groups

VIII. Mediums

(Suggestions only)

Basswood	Drawing paper	Lettering pens
Chalk	Charcoal	Water colors
Dyes	Plaster-of-Paris	India ink
Cork	Linoleum cutters	Linoleum
Brushes	Metal foil	Carving clay
Ink	Linoleum inks	

GRADES SEVEN AND EIGHT

I. Introduction

Upon the completion of the art course for elementary schools, it is reasonable to suppose that the child will have received sufficient training through the experiences suggested therein to make him a more intelligent consumer even though he receives no further training in the field. He will also have received sufficient training to prepare him for more advancement, should he have opportunity for additional training in the secondary school.

As the group progresses through the outline for the upper grades, there may be found some principle or need for some experience which they should have had in the lower grades but which was overlooked. Should such a need be apparent, time should be given for the needed experience.

The teacher of art in the secondary school has every reason to expect his students to have had the instruction as outlined in this course of study. The program of instruction will be based upon this assumption. A careful following of this course of study in Fine Art will insure greater progress and more certainty of success.

II. Standards of Accomplishment

- A. Continue to encourage free expression
 - 1. The child should now be expressing his individuality
 - 2. He should be developing a technique of his own
 - 3. He should be working with confidence and understanding
- B. Develop an understanding of line through
 - 1. Sketching (various media)
 - 2. Examples
 - 3. Brush work
- C. Develop an understanding of mass through
 - 1. Simplified designs
 - 2. Examples brought into the classroom
 - 3. Observation
- D. Develop an understanding of color through
 - 1. Necessary charts
 - 2. Observation of nature
 - 3. Use of water color and other color media

Note: Five-color theory may be introduced here
- E. Continue with the care of art materials, such as paints, brushes, crayons, rulers, and scissors
- F. Increase knowledge of handicrafts with emphasis on design
- G. Acquire more precision in the use of tools
- H. Develop intelligent attitude toward creative work
- I. Be able to appreciate and criticize the work of others
- J. Learn more about: design, figure study, perspective, posters, lettering, schoolroom arrangement, illustration, great pictures, relation of art to costume, interiors, exteriors, and objects of daily use

GRADE SEVEN

I. Color Study

(Do not handle formally unless need arises)

- A. Hue, value, and intensity should be made quite clear
- B. The children should bring colored objects into the classroom for discussion
- C. Color study should carry throughout the day whenever the opportunity presents itself
- D. Experiment to create harmonies; follow by discussion
- E. Apply color study to subjects from social science units

II. Freehand Drawing and Painting

- A. Use finger paint, opaque water color, and transparent water color for variety; continue free expression
- B. Some students may be so advanced and enthusiastic that they will produce individual murals; these must bring the children continuity of thought and unity of design and color
- C. Weak spots in individual backgrounds may be strengthened; pupil interest must be considered in the choice of subject matter
- D. Encourage library research and observation, to strengthen background; encourage sketching
- E. Sketch with chalk and other pliable mediums

III. Design

- A. Emphasize unity and simplicity
- B. Try to obtain designs from children in other schools (this is good material for reactions and discussion)
- C. Work for individual expression in design
- D. Experiment with sign-screen process work in direct, simple designs
- E. Continue to aim for a feeling of pattern in design

IV. Figure Drawing

- A. Simplify the figure used in design
- B. Continue to aid the child to obtain correct proportion

V. Lettering

- A. The lettering pen should be used with ease; lettering brushes that complete the width of line with one stroke should be used
- B. Interesting proportion and spacing should be stressed; and good examples of lettering should be studied
- C. By now, posters should be very effective in design, lettering and color; work for satisfaction in results

VI. Crafts

(Much craft work will satisfy a manual need)

- A. Wood carving is an excellent problem for third dimension (yucca is a very satisfactory wood for this work)
- B. Pictures on cloth are a satisfactory means of carrying over the principles of design; use water color, batik dye, printer's ink, or wax crayon
- C. Clay modeling continues the feel of building up and carrying out third dimension
- D. No-cost crafts are excellent for expressing design
- E. Mask making (mache') is a new experience for the child: use clay base, toweling strips, opaque colors to color, and shellac to make paint water-resistant
- F. Weaving allows choice of color and design if loom is available or can be made

VII. Appreciation

- A. To direct and guide appreciation, the teacher must "feel" the subject that the class is discussing, whether it be a picture, a piece of sculpture, a bit of color, a fine relationship of spaces, or a collection of art ideas
- B. Local examples of fine art may be discussed
- C. Colored pictures should be brought in; find the best in the picture; close the discussion before interest lags
- D. Develop appreciation throughout the day

VIII. Mediums

(Suggestions only)

Finger paint; charcoal; all kinds of water color; chalk; wood for carving; soap if used in the place of wood; drawing paper; wrapping paper; newsprint; rough-toothed paper; manila; white or colored construction paper; oil paints if needed; trescol; brushes; clay; craft material; and all materials necessary for the creative expression to accompany the social science units

GRADE EIGHT

I. Color Study

(Do not handle formally unless need arises)

- A. Review all previous color study
- B. The children should be allowed plenty of experience in applying art principles to color combinations
- C. In addition to application of color combinations, the child should be able to handle, in balance, two, three, and four values
- D. By this time children should have gained the necessary appreciation of intensity of color
- E. The children should show evidence of enthusiasm for color and a desire to continue with the study of color

II. Freehand Drawing and Painting

- A. Continue with sketching
 - 1. Develop a sketchbook
 - 2. If more than one sketch is to be on a page consider arrangement, especially
 - 3. Encourage individual choice of objects to sketch
 - 4. The playground offers ample subject matter
 - 5. Field trips offer material
- B. Sketch with a brush (water color)
- C. Observation is a requirement for all art work

III. Design

- A. Eighth-graders like to have a real reason for doing art work (applied design is the answer)
- B. The design made should be in keeping with the purpose for which it is to be used
- C. Abstract designs may be developed for pattern; see that the color values help develop the design; study examples of fine design

IV. Figure Drawings

- A. Include dozens of these in the sketchbook
- B. The figures may be from memory, from direct pose, or from the imagination
- C. By this time the child should have gained confidence in his drawing of the human figure
- D. Pottery figures are interesting; companion-piece figures are especially good for carrying out similarity of simplicity of line and color

V. Lettering

- A. Continue with simple poster composition; emphasize legibility, color, balance, originality, attractiveness, and carrying power
- B. Arrange words in an interesting manner on the poster; be sure signs are easily read—clear-cut lettering
- C. Add speed to accuracy. (Too often lettering becomes a prolonged agony.) Add new alphabet styles to those already known.
- D. Add a word or two to Christmas cards if block-printed

VI. Crafts

- A. Consider the application of principles of design
- B. Continue clay work, but do not devote as much time to it as in the lower grades (a fine sense of proportion should be acquired by this time)
- C. Introduce reed work; stress simplicity in design
- D. Make simple objects of copper and pewter
- E. Cast tiles in cement and plaster; apply wood carving to book ends, boxes and plaques; batik to small objects. Make wood blocks for printing.

VII. Appreciation

(Art appreciation is so all-inclusive that it must be stressed whenever the opportunity permits)

- A. Bring pictures representing interesting color composition or story element to the attention of the class (the decisions the teacher makes play an important part in the development of the child's appreciation)
- B. Encourage observation trips to homes or scenic spots
- C. Call in people with art interests to talk to pupils
- D. Bring art films to school, and point out bits of interesting color; place interesting still-life arrangements in classroom; encourage use of projector, if available

VIII. Mediums

(Suggestions only)

Craft supplies, variety of paints, charcoal, chalk, pencils for sketching, paper (be on the lookout for new papers), metal, colored pencils, block-printing equipment, coping saws, ink, lettering pens, soap, looms, and leather

LESSON PLANS

GRADE ONE

(A suggestion for an art lesson to be taught to this grade)

I. Teacher's Aim

- A. To determine child's interest
- B. To ascertain amount of muscular control the child has
- C. To determine whether child is able to follow directions

II. Pupil's Aim

To draw the picture of something seen during the summer that was of special interest.

III. Materials

- A. Drawing paper
- B. Crayons (some of the new crayons are very effective)

IV. Steps in Presentation

- A. Children are seated on chairs in front of the teacher
- B. Teacher: "All bow your head and when you think of one thing you liked that you saw this summer, raise your heads."
- C. Discussion of ways of telling news: telephone, telegraph, letter, and picture
- D. Explain use of materials
- E. As soon as children know the one thing they are going to draw, let them go to their tables and draw
- F. When drawings are finished, exhibit them so the class may guess what was drawn
- G. "No one dare tell what he is drawing" aids materially in discipline

V. Time:

10 minutes for lead-up, 10 minutes for drawing, 10 minutes for discussion (depending on size of class)

GRADE TWO

(A suggestion for a formal lesson which might be an outgrowth of a felt need for careful observation)

I. Teacher's Aim

- A. Introduction to sketching from a model
- B. Ability to portray a subject: pussy willows
- C. Skill in the use of white chalk and charcoal on gray paper
- D. A pleasing "composition" in light and dark

II. Pupil's Aim

To make a sketch that will have a "feeling" of spring

III. Materials

- A. Gray construction or poster paper cut 4" by 11"

IV. Procedure

- A. Suggest that the drawing be started near the top and built down, section by section (avoid drawing the stem in one sweep with pussies tacked on)
- B. Show how light or strong pressure will emphasize light and dark areas of the stems; how furry the pussies will look if they are not outlined and if the chalk pressure is varied
- C. Compare the width of the stem at the top and bottom and the size of the pussy, with the size of the stem; discover where and how the pussy grows out of the stem
- D. Show that by carrying the stem out of the bottom of the paper the pussy "grows" instead of hangs in the air
- E. Complete by adding a second stem which begins lower than the first and to one side of it (avoid crossed stems)
- F. Mount (paste top edge) to light green or orchid mount

V. Class Exhibit and Review

"Hang" the finished sketches and enjoy them together, the children mentioning especially good bits and suggesting some improvements.

VI. Time:

About 40 minutes

GRADE THREE

(A suggestion for an art lesson to be taught to this grade)

I. Teacher's Aim

- A. To encourage free expression through drawing and the use of crayons or other media
- B. To make the primary curriculum real through the visualization of experiences and subject matter
- C. To have the child express his ideas within his world
- D. To encourage and lead the child to higher levels of appreciation and to greater ability to feel and express ideas graphically

II. Pupil's Aim

To draw a picture based upon a home experience definitely related to the season of Spring

III. Materials

- A. Large-size paper 18" by 24"
- B. Colored chalk or crayon

IV. Presentation

- A. Stories are told by the child of activities of the season: such as planting seeds, cleaning the house, raking the yard
- B. Activities are discussed and dramatized
- C. Things which interest the child are drawn on paper
- D. Proportion, structure, rhythm, balance, harmony, and color are discussed
- E. A few simple principles of perspective are established

GRADE FOUR

(A suggestion for an art lesson to be taught to this grade)

I. Teacher's Aims

- A. To satisfy the child's desire for creative expression
- B. To encourage creative expression through the use of finger paint
- C. To give sufficient time to enable the child to release his emotions without thinking of technique

II. Pupil's Aim

To make a free illustration, border or surface pattern as an expression of his own feeling at the moment

III. Materials

- A. Finger paint in a variety of colors. Finger-paint paper, 16" x 21", for each child.
- B. One piece of white oilcloth for each desk or large pieces to cover tables for use of a number of children
- C. Large oblong pan for dipping paper in water; small pans for water for each child, to moisten paper as it dries before creation has been completed; cloths or sponges, and a bucket of water for cleaning up
- D. Victrola and several records of different nature such as "The Toy Shop," "The Swan"

IV. Procedure

- A. Let pupils in front seats assist in distributing materials: oil cloth, water pans, and damp cloths
- B. Have each child write his name on the dull and wrong side of a full sheet of finger-paint paper
- C. One row at a time, let children pass to the front of the room and immerse paper in a pan of water on table; pass to seats and smooth wrinkles in paper, glossy side up. (Errors and confusion will be reduced if teacher first illustrates method while children stand in aisles and observe her work or on blackboard. The wet paper will adhere to the blackboard.)
- D. While rows of children proceed as above, the teacher places on the papers of those now at desks several teaspoonsful of finger paint, one color to each child
- E. When each pupil has been supplied with finger paint, instruct children to smooth out paint all over paper, using fatty parts of palms (sprinkle paper with water from small pans if the paper is drying too rapidly)

- F. Play several records on the Victrola while children smooth out paint (instinctively their hands will move in harmony with the rhythm of the selections)
- G. Observe movements of different children and suggest that the same movement in one direction will produce a border; that a continuous movement in regular order all over the paper, from corner to corner on up and down and across, will produce an all-over pattern such as one finds in wall-paper, cloth, etc. (Let children discover for themselves what the use of their fingers, hands, and arms will create. Suggest that children need not make a border or all-over pattern, but may create a picture of what the music means to them.)
- H. If, after the use, for ten or fifteen minutes, of finger paint, accompanied by music, the children have not created a creditable piece of work, the teacher may suggest some subject for inspiration such as Rolling Hills (border, surface pattern, or illustration), The Giant Wave, (illustration), Trees in the Wind, (illustration or border), House of the Dwarfs, (illustration). Devote ten minutes to the development of subjects chosen by children or suggested by the teacher (as a last resort); then place finger paintings on long strip of wrapping paper or newspaper to dry.
- I. Have each child wash his own oilcloth with damp cloth placed on his desk at beginning of lesson. Cloths are rinsed in bucket as it is passed and water from small pans emptied, or teacher may devise a better plan to expedite cleaning up with a minimum of confusion.
- J. Collect paintings when dry and press on wrong side with warm iron. (Arrange to have each child's creation displayed for at least a short time to honor his effort. Mount most representative work for exhibition.)

V. Time:

Thirty minutes

GRADE FIVE

(A suggestion for an art lesson to be taught in this grade)

I. Teacher's Aim

- A. Development of an abstract, bisymmetrical unit of design, pleasing in balance and variety of line direction
- B. Use of the design in border and all-over arrangement, considering balance in light and dark values

II. Pupil's Aim

Production of a border or all-over design to be applied to a booklet or portfolio cover.

III. Procedure

- A. Rule and cut manila paper into rectangles (2 1/2" on the 9" edge, 1 1/2" on the 12" edge)
- B. Fold rectangles on either diameter. Hold fold in left hand (in right hand if left-handed)
- C. Cut, beginning at the bottom, a varied and interesting shape that extends to the right-hand edge and the top in at least one place. (Use no pencils. Emphasize dominance and subordination—interesting area relationships.)
- D. Unfold and consider possibilities for improvement
- E. If too "heavy" in area, remove central area or areas by repeating the general direction of the outside line when cutting the inside line. (Children invariably cut a few diamond or square "holes" down the center fold if they are uninstructed; therefore, this step in the method is very important and must be stressed.)
- F. Cut other shapes as varied as possible (use the other diameter for the fold on some) and choose most pleasing one for final application
- G. Repeat in border arrangement "hanging" from a line near the top of the cover paper (lettering near the bottom) or arrange in all-over design (no lettering). Regardless of chosen technique have the design units traced very close together.
- H. Color with crayola, or paint with opaque water color, applying principles of color combinations and color values and intensities previously learned

V. Time

One 50-minute period a week for four or five weeks (less for groups who are ready for the problem)

GRADE SIX

(A suggestion for an art lesson to be taught to this grade)

I. Teacher's Aims

- A. To have pupils attain additional skill in the handling of color and design
- B. To emphasize sixth-grade standards in freehand drawing and perspective
- C. To introduce three-quarter views in figure study
- D. To vitalize the study of history

II. Pupil's Aim

To make a mural which will depict the life of the Middle Ages through color, costume, architecture, and figure action

III. Materials

- A. Wrapping paper

As many strips of paper as there are to be murals. Where there are but a few pupils in a class, all work on one mural. If the class is made up of thirty-five or forty sixth-graders, it is likely that, work room permitting, there will be from one to five murals.

- B. Thumbtacks

To attach mural paper to floor or wall

- C. Charcoal

For use in sketching in general plan of mural

- D. Chalk crayons or tempera

- E. Brushes, if paint is used

IV. Teacher Preparation

- A. Teacher must have adequate knowledge of subject matter to be taught
- B. She must be acquainted with the standards of accomplishment in art for Grade Six
- C. She should have illustrative material in quantity and should know at what time during the study the material may be used to best advantage

V. Pupil Preparation

He must have a background of medieval history through:

- A. Study of the text
- B. Reading supplementary material
- C. Observation of illustrative material
- D. Discussion

During the making of the mural no child should copy pictures. He may refer to reference material for period styles in costume and architecture.

VI. Steps in Presentation

The mural may be built in one of two ways:

- A. Drawings separated by border designs
 - 1. Small drawings developed during the period of study to emphasize high points in the lesson
 - 2. The most representative drawings chosen to be enlarged for mural
 - 3. These drawings enlarged and carried to completion by the original artist
 - 4. Pictures set off by a common medieval pattern or border
- B. Large continuous mural
 - 1. During the study of medieval life, "felt needs" in drawing are discussed. Time is set aside to conquer these "felt needs." These needs may be:
 - a. Additional help in figure drawing
 - b. Study of lettering of medieval times
 - c. Better understanding of perspective
 - 2. When study of medieval life is about completed, discuss:
 - a. What size the mural should be
 - b. What should be included in the story of the mural
 - c. How the ideas should be arranged
 - d. Relative sizes of buildings, bridges, figures, and vegetation
 - e. What should be drawn first
 - f. How many pupils should work on each phase of the mural and who they are to be:
 - (1). Three or four may develop the figures
 - (2). A number may be chosen to work on the buildings
 - (3). Others may do research on authentic medieval color and help fill in color areas

GRADE SEVEN

(A suggestion for an art lesson to be taught to this grade)

I. Teacher's Aims

- A. To give the pupils a background of appreciation for the craft of block printing
- B. To explain the methods of block printing

II. Pupil's Aim

To produce a textile from an original design cut from linoleum

III. Materials

- A. A square of muslin, fine-mesh monks' cloth, linen crash, or other suitable material large enough to make a pillow cover
- B. Battleship linoleum sufficient to supply each pupil with a three-inch square of the material; blocks same size; and brads
- C. Printer's ink in a few standard colors
- D. Brayers and tiles or pieces of glass for rolling out ink
- E. Turpentine for thinning printer's ink
- F. Cloths for cleaning tiles or glass
- G. Linoleum tools (few sets) or pocket knives and razor blades
- H. Newspapers to use as pads under cloth
- I. Mallets to give pressure in printing
- J. Two or three pieces of newsprint or other paper of similar weight, 3" square, for each pupil
- K. Scissors

IV. Procedure

- A. First art period
 - 1. Give a history of printing, from blocks as used in Egypt, China, Korea, and Japan, and in Colonial days. Discuss materials used and methods employed. Illustrate with prints and kinds of wood used, if possible. Show samples of modern handblocked textiles. Explain and illustrate other uses of block printing other than the decoration of textiles. Encourage children to contribute to this lesson.
- B. Second art period
 - 1. Provide each pupil with two or three squares of thin cutting paper each 3" square, and scissors

2. Teacher explains several ways of creating a design by cutting, before the pupils, from twelve-inch squares, abstract designs radiating from center and axis or base. (Fold one square twice and illustrate radiation from center. Fold once to illustrate radiation from axis or base.) In one design, teacher emphasizes squares, in another—angles, and in another—curves.
3. Pupils cut original designs based on squares, angles, and curves, illustrating three kinds of radiation. No previous drawing.
4. Teacher assists pupils in selecting best design for application to linoleum

C. Third art period

1. Three-inch squares of linoleum and tools are distributed
2. Pupils trace selected design on linoleum and proceed to cut out spaces that are cut out in the paper design, following the teacher's instructions concerning method of cutting, so as not to undercut
3. Linoleum is tacked to type-high blocks of wood, care being taken to place the brads in the low places of the design

D. Fourth art period

1. Pupils stretch cloth to be printed over newspaper pads and indicate with white chalk where designs are to be printed
2. Several colors of printer's ink are rolled out on tiles or glass (it is assumed that there is a work table in the classroom and that a few pupils work at one time)
3. The ink is then rolled on to the blocks so that the blocks are well covered, and the pupils proceed to turn them face down on the material, holding them carefully to prevent slipping, and continue to print with the use of the wooden mallet until a surface design has been completed
4. Place finished pillow tops on a line to dry, and proceed to clean tiles and brayers with cloths saturated with turpentine

V. Time

Four class periods of 45 minutes each

GRADE EIGHT

(A suggestion for an art lesson to be taught to this grade)

I. Teacher's Aims

- A. To create in the minds of the pupils, through graphic expression, the idea of safety
- B. To impress upon the public, through illustration, the slogan "Safety Driving"

II. Pupil's Aims

- A. To demonstrate good design and good color
- B. To develop posters that will help in a community drive for "Safety First" in automobile traffic

III. Preparation for Teacher and Pupil

- A. Collect data on accidents, causes, preventions
- B. Collect booklets issued by automobile clubs, insurance companies, and automobile manufacturers
- C. Discuss subject in social science classes
- D. Write essays on subject in composition classes
- E. Dramatize the subject

Illustrations and posters should be simple in character; idea should be conveyed at a glance; there should be few colors; the result should command attention

IV. Working Materials

- A. Charcoal to depict preliminary ideas and sketches
- B. Newsprint paper of poster size
- C. Poster board
- D. Poster paints
- E. Brushes

V. Procedure

- A. Develop a design in small proportionate areas to obtain good composition
- B. Enlarge to poster proportions
- C. Criticize sketches in a class showing
- D. Complete the design on newsprint
- E. Trace on poster board
- F. Make color sketch on small scale to determine harmony and distribution of color
- G. Apply poster color, as previously determined, to design on poster board
- H. Repaint any area or unpleasing color
- I. Clean entire surface with soft erasure

VI. Poster Hints

Be sure your design is simple and fills the space well. Avoid delicate details. Make wording short and easy to read. Plan the position of the wording in relation to poster design. Make all parts of the poster hold together, so that no part appears detached. Use few colors. Keep the brighter ones for the parts to be emphasized. Emphasis may be gained through unusual arrangement, size of the part, and color of the part. Criticize your work. Stand away from your work. Does it carry the idea you wish? Would it attract your attention? Would you read it and be inclined to do the things it suggests?

VII. Recipes

A. Tempera

1. 4 eggs (whole eggs--do not beat, as beating will cause air bubbles)
1 T. vinegar
1 T. boiled linseed oil
2. Mix three above ingredients together
3. Add powdered color bought at hardware store
4. Use water as needed to thin to right consistency

Note: The mixture of egg, vinegar, and linseed oil may be kept in a jar and used when needed

B. Paper mache'

1. Paper mache', of clay-like consistency, is made of crushed wet paper and cooked flour paste. This is excellent for modeling puppet heads and bodies.
2. To make paper mache', crumble many single sheets of newspaper and soak in water. If convenient, soak in hot water and let stand over night. Tear paper in shreds or rub it on a washboard until it is free from lumps and as fine as possible. Drain off all the water, without squeezing the paper. The paper is now ready to mix with paste. Cold-water paste may be purchased by the pound and serves admirably. When this paste is not obtainable, make a paste by mixing flour and water to a creamy consistency, add boiling water and let boil for two or three minutes. When cold, the mixture should be as thick as lemon pie filling. Now mix together about half as much paste as paper pulp and press out water by wrapping it in a piece of turkish toweling.
3. Tests for good paper mache':
 - a. If there are particles of water when you press your fingers into the mache, squeeze it some more

- b. If it cracks open when you press your fingers into it, it is dry and needs more paste
- c. If there are lumps in the mache', the pulp is not fine enough. Pull lumps apart.

Note: After your model is finished it must be dried slowly. It takes fully one day and sometimes two, in the strong sunlight, or several hours in a slow oven before the model is thoroughly dry.

C. Sawdust mixture (for fist puppets)

- 1. Place some paste in a large bowl
- 2. To each pint of paste add a heaping teaspoon of alum (powdered) to harden it
- 3. Add two teaspoonsful of formaldehyde, to keep out moths and molds (formaldehyde is poison)
- 4. When well mixed remove about one-third of the paste to another bowl, and into the rest slowly stir sawdust, until the mixture is of about the consistency of biscuit dough

D. Flour paste

- 1. One-half cup of sifted flour and two cups of cold water
- 2. Place flour in a saucepan, add a little water and mix, rubbing out lumps until smooth
- 3. Slowly add the rest of the water
- 4. Put on the fire and stir until clear
- 5. When cool it should be a thin jelly (if too thick, beat and add more water)

E. Finger paint

- 1. Dry paste (Fuller's Red Stave is very satisfactory)
- 2. Dry color or tempera (prepare paste and then add color)

VIII. Pictures

Pictures, the study of which will enrich the 48 units of the Montana elementary program, will be found under the heading: "Applications of Art and Handwork" on the unit worksheets. They will usually be found under the subhead "Appreciation."

IX. Art Publications (Magazines)

DESIGN. Design Publishing Company, Box 267, Columbus, Ohio
 THE HANDICRAFTER. Emile Bernat & Son Co., 10 Ferry St., Concord, N. H.
 THE SCHOOL ARTS MAGAZINE. Printers Building, Worcester, Mass.

X. Publishers of Prints for Picture Study

Denoyer-Gipert Co., 5235 Ravenswood Ave., Chicago
 DeWitt Ward, 227 West 13th St., New York City
 Fairbairn Art Co., 736 West 173rd St., New York City
 F. A. Owen Publishing Co., Dansville, N. Y.

George H. Clarke, 307 South Franklin St., Syracuse, N. Y.
 Raymond and Rissling, Inc., 40 E. 49th St., New York City
 Shima Art Co., Inc., 16 West 57th St., New York City
 The Chicago Art Institute, Print Dept., Chicago
 The Colonial Art Co., Oklahoma City, Oklahoma
 The Perry Picture Co., Box 10, Malden, Massachusetts
 University Prints, 11 Boyd St., Newton, Massachusetts

XI. Supply House Addresses

American Art Co., 4717 West 16th St., Indianapolis
 Benny Smith Co., 208 North LaSalle St., Chicago
 Burgess Handicraft, 117 N. Wabash, Chicago
 Elcraft, 2105 E. Seventeenth St., Denver, Colorado
 Esterbrook Pen Co., Cooper St., Camden, New Jersey
 W. R. Meininger, 409 16th St., Denver, Colorado
 Milton Bradley Co., 2249 Calumet Ave., Chicago
 Northern School Supply Co., Great Falls, Montana
 Prang Co., 1922 Calumet Ave., Chicago
 Talens School Products, 320 East 21st St., Chicago
 The Handcrafters, Waupun, Wisconsin

XII. Traveling Art Exhibitions

(Write these addresses for current offerings)

Art Center, 65 East 56th Street, New York City
 Traveling exhibitions were organized by the Art Center a few years ago in order to make available for museums, art galleries, colleges, schools, libraries, and clubs, throughout the country, collections of work by contemporary artists, designers, and craftsmen. Exhibits of work of elementary school children are sometimes sent.

The Metropolitan Museum of Art of New York
 The Museum Extension has a lending collection of lantern slides and photographs. They are reproductions of architecture, sculpture, paintings, prints and decorative arts. Application forms will be furnished on request. Address all correspondence to Alice L. Felton, Assistant in Charge, Museum Extension Service, Metropolitan Museum of Art, New York City.

Shima Art Company, 16 West 57th Street, New York City

XIII. Bibliography

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 Collins & Riley. *Art Appreciation*. Harcourt, Brace & Co., New York
 Craven, Thomas. *A Treasury of Art Masterpieces*. Simon & Schuster, Inc., New York
 Mathias, Margaret. *Beginnings of Art in the Public Schools*. Charles Scribner's Sons, New York
 Shaw, Ruth. *Finger Painting*. Little Brown & Co., Boston
 Tomlinson, R. R. *Crafts for Children*. The Studio Publications Inc., New York
 Tomlinson, R. R. *Picture Making by Children*. The Studio Publications Inc., New York
 Winslow, Leon. *The Integrated School Art Program*. McGraw-Hill Book Co., Inc., New York
Art in American Life and Education. Fortieth Yearbook of the National Society for the Study of Education. Public School Publishing Co., Bloomington, Illinois

COURSE OF STUDY IN FAMILY LIFE EDUCATION

(HOMEMAKING)

General Suggestions

I. Introductory Statement

The basis for happy living in a family or community is nothing more than courtesy toward and consideration of others. Knowing how to live happily with others is not a gift which one inherits; it is, rather, something which one must learn. There is no merit in teaching courtesy and consideration in the school unless they are practiced in the home. Parents and citizens of a community must recognize and assume responsibility for the development of the child and counsel him in the solution of family and community life problems. It is during the period of childhood that one becomes a social or an antisocial individual. A child must be taught to understand that his own family is a social unit. He must be made to realize that each member of the family must accept a share of responsibility toward making the home a happy and satisfactory place to live.

The home and the school have so much in common in sharing this responsibility that it is difficult to distinguish the part that each has to play. There are, however, some experiences which, by their very nature, belong to the home. It is family life itself that provides the material for study and presents the realistic environment for the child's experiences. The home has much to contribute to the work of the school and sometimes the home environment will be found to be superior to the atmosphere in the school. In the home there is a basis of affection which cannot be found in the school, and, of course, the home has a "head start" in the six years of family and home life which the child experiences before coming to school.

The beliefs and experiences which are sponsored in the school must be kept growing in the home. This does not necessarily mean that the school should impose new techniques in home-making skills upon the home, but it does mean that the school must assume leadership in establishing definite interdependence between the home and the school. There are many ways in which the school may do this. Study groups composed of fathers and mothers of school-age children may be formed. A community study of child guidance will do much to establish home-school cooperation, and other means will grow out of these efforts which make it possible to explain the objectives of a home-making program to parents, in such a manner that they will understand why education for family living must be a joint undertaking of the home and the school.

II. Objectives

- A. To create a desire to learn to do simple household tasks in an approved manner; to learn to do very simple sewing well; to learn to use flowers, grasses, seedpods, and other local flora in simple artistic arrangements
- B. To afford an opportunity to practice and experience social customs wherever an opportunity for such learning is presented and to create a desire to contribute more happiness to home life, through assuming some responsibility for the enjoyment of family living
- C. To create some understanding of the importance of caring for the furnishings and equipment of the home; some appreciation of the value of caring for one's personal belongings; and some understanding of the importance of assuming some responsibility for the management of time and money
- D. To create a desire to have an understanding of the foods necessary for growth; and to learn to prepare and serve, with some ability, simple wholesome foods
- E. To realize that through handicraft, the child can learn to make definite contributions to the home

III. Procedure and Content

A. The units

The forty-eight units which comprise the Montana elementary school program are rich in materials which apply to problems in family living. The teacher should not attempt to discover correlations between the unit material and community life today which do not exist; she will find that some of the problems in the forty-eight units lend themselves more definitely than do others to an approach through homemaking activities. The teacher should carefully explore the unit which is about to be studied to discover which parts of it will have interest from the homemaking viewpoint. She should set up definitely the basic learnings she hopes to reach and plan the types of lessons and procedures which she believes will lead to the achievement of these objectives. As suggestions for the possible development of units in this way, one unit in each of the grades is outlined herein.

B. Suggestive types of lessons

1. Demonstration lessons

One of the most effective ways of teaching homemaking is by demonstration. In this method the teacher shows the approved procedure. In developing an objective such as learning how to make a bed, the demonstration may be carried out, using the bed in the teacherage or a dollbed in the schoolroom.

After the teacher shows the proper way to make the bed, time must be given to each child to practice making the bed as the teacher has demonstrated. The reason for each step is explained and the children discuss the procedure and ask questions. The value of the demonstration is measured by the degree to which the children take an interest in caring for their own beds at home. The children enjoy making reports as to the application in home activities of procedures learned at school. The teacher must evaluate the results by whatever means she can, and make plans for further experiences in family living.

2. Discussion lessons

Before the children are ready to undertake an activity such as a demonstration, or when they are just beginning a new unit, there will be need for discussion lessons. For example, if the unit developed the problem of how the pioneers crossed the Allegheny Mountains and settled in the Mississippi Valley (Grade Five—Unit Two), the discussion would center about the establishment of pioneer homes. What furnishings were brought overland and what had to be made for the new home? What tools did the people have to work with? How did their daily living compare with daily living today? These and many more questions would constitute a simple discussion lesson in homemaking.

3. Lessons based on illustrative materials

Lessons can be developed about pictures found in books or articles brought from the children's homes. Parents and others in the community are usually delighted at the opportunity to cooperate in developing interest in a relic or choice possession. The presence of the article stimulates interest and encourages other children to bring exhibits from their homes, thus establishing valuable school-home contacts.

C. Teaching materials

There are excellent materials to use as teaching aids in most of the textbooks of the elementary grades. Many stories from histories, language books, and readers can be interpreted in the light of family-life situations. The use of these should be informal and should not be too apparent as an endeavor to change the child's thinking habits. The Montana Home Economics Course of Study (1941) has many teaching aids, such as interesting approaches and records of pupil experiences, that will be of great assistance to the teacher. The equipment necessary in order to carry out the instruction in this course is not elaborate. A teacherage makes an

ideal homemaking workshop, because it can be used as a place for demonstration and practice. If no teacherage is available, a nearby home may be used if the lesson pertains to some definite phase of home life. There should be a table in the schoolroom. For a luncheon, the table may be made attractive with a covering of paper napkins. Interesting arrangements for the table are possible throughout the year in every part of Montana. Children will begin to watch for these. Correct table manners and eating habits should be encouraged, and in every way the environment should become a learning center for family living.

IV. Attainments

- A. A true understanding of the habits and customs of people in other countries develops a happier and more congenial world
- B. By setting a good example, older children may influence the health and social habits of younger children
- C. When personal belongings are properly stored, they wear longer and look better; proper storage of clothing also makes the room more attractive
- D. It is important to plan the use of money and time in order to gain the greatest satisfactions in life
- E. There are less accidents while playing with others if every child is courteous
- F. Happy and satisfactory home life depends largely upon co-operative living in the family group
- G. Helping the family during sickness, doing an extra share of work, and making the patient comfortable, carry incidental learnings important to family happiness
- H. Correct food habits, if formed in childhood, are the basis for building healthy, strong, and physically-fit adults
- I. Experience in using native materials in creating artistic arrangements in the home leads to greater awareness of the world in which one lives
- J. A realization that good grooming is a source of satisfaction to one's self and a basis of mental poise
- K. Judgment in deciding whether clothing should be made at home or purchased ready-made

V. Suggested Activities Showing Approach to Some of the Social Science Units

Grade One—Unit Four

People Around About Us

A. Some pupil experiences

1. Living in the family

- a. Lead child to talk about his home experiences
- b. Let the child tell of how he helps the smaller children in the home
- c. Assist child to see more ways of helping in the home and encourage more show of affection in the home

2. Food

- a. Help the child to choose wisely a mid-meal lunch
- b. Emphasize the need of eating slowly
- c. Suggest small attractive servings
- d. Encourage contributions to table conversations
- e. If possible, let the child help with mid-morning and noon lunch food activities

3. Housing

- a. Discuss ways of sharing responsibilities in the home
 - (1) Pick up toys and personal belongings
 - (2) Keep shoes clean
 - (3) Refrain from marring furnishings and leaving finger-marks
 - (4) Very simple flower arrangements may be practiced, using local weeds and flowers

4. Clothing

- a. Teach reasons for wearing outer wraps (when to wear them and when not to wear them)
- b. Keep standards of clothing cleanliness high
- c. Encourage child to hang up clothes at school and at home

5. Social courtesies

- a. Practice courtesy through school and home experience
- b. Teach simple, approved first lessons in table manners
- c. Practice good table manners in all available situations; lunchroom, picnics, parties, and encourage continued practice in the home

B. Further development

One approach to teaching children a part they can be expected to play in the home might be through the serving of mid-meal or noon lunches in the school. In rural schools, where noon lunches are regularly served or where children bring their lunches, there is daily opportunity to demonstrate participation in the social aspects of the family meal. In schools where no lunch is served at noon or where few children eat at school, special lunches for the group may be planned for birthdays, holidays, or other occasions.

During the mid-meal lunch, or lunch hour, the children are encouraged to sit up to a table and eat their lunches in a typical home setting. The meal period can be made an excellent means of encouraging cleanliness, pleasing conversation, politeness in the group, and approved eating habits. First rules in habits of eating, such as chewing with the mouth closed, approved use of eating utensils, taking small bites, and eating slowly will have been taught by the teacher. The children may discuss pleasant school and home experiences, and learn to enjoy the advantages of a friendly environment during the lunch period.

The teacher supervises the arrangements for the lunch and the children discover how enjoyable it is to work under guided supervision. The learning acquired in lunch periods of this sort will be carried into the home since children of this age tell their parents everything of interest that happens at school. In this way, demonstrations of this type in school may definitely contribute to the subject of the unit which deals with the association of children with people they find around about them in the home.

C. Bibliography

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Friend, and Schultz. *A First Book in Home Economics*. D. Appleton-Century Company, Inc., New York, Rev., 1941, \$1.80

Kinyon and Hopkins. *Junior Home Problems*. Benj. H. Sanborn & Co., Chicago, 1936

Matthews, Mary Lockwood. *The New Elementary Home Economics*. Little Brown and Company, Boston, revised, 1940, \$1.50

Additions for this unit:

How to Select Food. *Farmers' Bulletin No. 824*. U. S. Department of Agriculture, Washington, D. C., 1936

One-Dish Meals. Iowa State College, Ames

Single-Dish Meals. Colorado State College, Fort Collins

Table Service for Busy Families. State Board for Vocational Education, Topeka, Kansas

Grade Two—Unit Seven**Things That Come to Life in the Spring****A. Some pupil experiences****1. Living in the family**

- a. Encourage a child to be kind to animals and to protect wild life and so set an example for smaller children
- b. Teach the child how to care for pets
- c. Assign lessons in recognition of common flowers, trees, and shrubs
- d. Discuss new ways of helping in the home. Examples: cleaning the yard, care of garbage, helping with home cleaning

2. Food

- a. Teach value of vegetables in the diet
- b. Use illustrative materials to show difference in proper and improper diets
- c. Teach children the right way to help with the home gardening
- d. Give opportunity for experience in table setting and simple food preparation in the lunchroom. Each room should have a tablecloth, dishes, silverware, glasses, and napkins as teaching materials.

3. Social courtesies

- a. Encourage enjoyment of all foods and discourage tendencies toward food dislikes
- b. Keep standards of courtesy high and increase knowledge of acceptable manners
- c. Teach consideration of others wherever possible

4. Housing

- a. Teach and illustrate correct ways of sweeping and dusting
- b. Begin simple discussions of how to care for personal belongings
- c. Emphasize "A place for everything and everything in its place"
- d. Plant flowers in the classroom, in windowboxes, and in the home yard
- e. Continue work on simple flower arrangements; emphasize use as table decoration

5. Clothing

- a. Give some study in clothing color harmonies
- b. Children at this age like to wash and iron and need to be given simple, clear directions for "beginner" work

B. Further development

Spring is the time of renewal, or starting over, and children naturally respond at this time of the year to suggestions of renovation, cleaning up, and to new ways of making the home more attractive. It is not difficult to understand why house cleaning is as natural in the spring of the year as pussy willows and pasque flowers.

Every schoolyard needs cleaning in the spring after the snows have melted. Children of the second grade may assume considerable responsibility in the work of cleaning the yard and keeping it clean. The subject of garbage disposal and waste follows naturally. Children will willingly carry on this work at home if cooperative suggestions and demonstrations are given at school.

Second grade children can be taught to help with sweeping and dusting in the home. There are right and wrong ways of doing these simple household tasks. Use the teacherage as a place to practice approved methods, or, if this is not possible, use a nearby home or the schoolroom itself.

Children should be encouraged to bring flowers to school and all flowers that are brought should be utilized in room decoration and beautification. Simple undecorated vases should be used so that the flowers themselves are the center of interest. Montana has many wild flowers, and spring offers the best opportunity to teach appreciation of the child's environment. From arranging wild flowers in vases in the schoolroom it is an easy step to planting flowers in the room or in windowboxes. The teacher should check with parents, wherever possible, to discover how many of the skills and attitudes growing out of this unit carry over into the home.

C. Bibliography

Arrangement of Home Furnishings for Comfort, Convenience, and Beauty.
Cornell University, Office of Publication, Roberts Hall, Ithaca, New York
Attractive Home, The. Division of Agricultural Extension, State College,
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versity of New Hampshire, Durham

Conway, John Gregory. Flowers: Their Arrangement. Knopf, New York,
1940

Flower Arrangement. Extension Division, Iowa State College of Agriculture
and Mechanic Arts, Ames, 1938

House Cleaning Management and Methods. Farmers' Bulletin, No. 1834.
U. S. Department of Agriculture, Washington, D. C., January, 1940

Morton, F. E. Household Care and Cleaning. Circular 183, revised. Division
of Agricultural Extension, State College, Pennsylvania, 1940

Pond, Julia. Household Closets and Storage Spaces. Extension Division,
Michigan State College, East Lansing, 1936

Safety in the Household. United States Bureau of Standards, Washington,
D. C.

Sharing Home Duties. Iowa State College, Ames

Grade Three—Unit Seven

Playing and Growing Together

A. Some pupil experiences

1. Living in the family

- a. Encourage child to assume more responsibility for fun within the family
 - (1) Reading stories to smaller children
 - (2) Teaching smaller children new games and songs
- b. Continue emphasis on need of setting a good example in all forms of play
- c. Teach and play games that may be played in the home

2. Food

- a. Games that may be played at the table to encourage eating slowly
- b. Teach why certain foods promote growth
- c. Discuss further, and determine the best foods
- d. Start planning, as well as preparation, of school lunch at this time. Children at this age may be taught how to wash dishes, and may be given definite responsibilities in cleaning the school-lunch quarters.

3. Social courtesies

- a. Direct organization of games at school which can be played at home
- b. At all times practice courtesy in playing games and consideration for other children
- c. Continue emphasis on table etiquette during every lunch or meal

4. Housing

- a. Emphasize, further, storage of clothing and personal belongings
- b. Make simple storage containers
- c. Teach fundamentals of caring for own room
- d. Demonstrate simple table decorations

5. Clothing

- a. Continue instruction on general care of clothes
- b. Hem dishtowels; make potholders

- c. Discuss need of wearing play clothes for play and care of school clothes

6. Care of sick

Children enjoy doing things for injured or sick people. In this unit teach bandaging of simple cuts and caring for other small injuries resulting from accidents on the playground.

B. Further development

The average school does not teach ways or means of having fun in the family. There are many opportunities in the school day for playing games; often the lesson planned does not take the full period, or the interest is at low ebb, or it may be too stormy to play out-of-doors. An alert teacher will have a fund of games ready to use at any opportune time. Such games as "Who Am I," charades, guessing contests, observation games, as well as card games such as authors, airplanes, and old maid, should be part of the teaching materials. Chinese checkers and parcheesi are examples of bad-weather games. A liking for this type of entertainment in school will exert pressure on the home to supply the family with a good assortment of games and ideas for family amusement.

C. Bibliography

(The titles listed here are all pamphlets and most of them may be secured without cost)

Games for 4-H Club, Home Bureaus, and Groups in the Home. Cornell University, Ithaca, New York

Gessner, Amy, and Varney, Verne. Recreation for the Farm Home. Extension Service of the College of Agriculture, University of Wisconsin, Madison

Hobbies for the Home. University of Wisconsin, Madison

Learning Through Play. Iowa State College, Ames

Planned Games for the Social Hour. University of Wisconsin, Madison

Sharing Home Pleasures. Iowa State College Extension Service, Ames

Toys and Equipment That Can Be Made at Home. University of Illinois Urbana

Grade Four---Unit Two

The Early American Colonists and Their European Homelands

A. Some Pupil Experiences

1. Living in the family
 - a. Talk with the class about the privileges enjoyed by children in colonial times and contrast with the privileges children have today
 - b. Discuss ways in which the solidarity of the family was closer in colonial times, and what caused the change in family living
 - c. Show ways in which family members today can help each other
2. Food
 - a. Compare diets of colonists with present-day teachings about nutrition
 - b. Obtain data on birth and death rates in colonial days and now
 - c. Discuss foods the colonists served that were better than some commonly served today
 - d. Serve simple meals in the lunchroom, similar to those of the colonial period (children may prepare these and later prepare "Indian Puddin'," or some easy dessert, in the home)
3. Housing
 - a. Compare furnishings and comforts of colonial times with those of the twentieth century
 - b. Use many illustrative materials
 - c. Show the great advance in cleaning methods
 - d. Make small braided or hooked rugs that can be used in the home
 - e. Have exhibit of old colonial dishes, pictures, and furnishings
4. Social courtesies
 - a. Compare the formal, strict rules of etiquette of the seventeenth century with the informality of the twentieth century
 - b. Let the class prepare and serve an appropriate lunch for a simple colonial tea
 - c. Practice social courtesies of colonial times, for fun

5. Clothing

- a. Compare (and discuss) the clothing of the present day with the clothing of colonial days, from a standpoint of health, care, and durability
- b. Have children dress miniature dolls in colonial attire. These should be constructed so that they will be decorative objects in the children's rooms.
- c. Have children make clothing bags to encourage keeping of soiled clothes in appropriate places

B. Further development

The study of the colonial period gives an excellent opportunity to develop the contrast between the formal courtesies of the colonial home and the easy, friendly courtesy within the family today. As a culminating activity for this unit the class might have a colonial party. Some research will be necessary to get pictures of colonial clothing, and the help of teacher and parents will be needed to imitate colonial costumes. Cotton batting can be used for powdered wigs, and knee breeches and fancy shoe buckles must not be overlooked. Some of the activities engaged in at the party might be:

1. The Virginia reel and the minuet
2. Polite formal conversations
3. Dignified walk, bearing, bowing, curtsying
4. Imaginary meetings of famous colonial characters
 - a. Washington and Franklin
 - b. Martha Washington and Betsy Ross
5. Home preparations for the party: Cleaning and repairing clothing, spinning, weaving, darning, mending, making samplers

Out of this activity children should discover that the fundamentals of courtesy, such as the consideration of others, are much the same in any age. They should acquire an appreciation of the care which the colonials gave their clothing which was so hard to make, and the care which should be given our clothing today.

C. Bibliography

- Allen and Briggs. *If You Please!* J. B. Lippincott Company, Chicago, 1942.
Price \$1.50
- Black. *Manners for Moderns*. Allyn & Bacon, Chicago, 1938
- Care and Repair of Clothing. Oklahoma Agricultural and Mechanical College, Stillwater
- Hat Storage. University of New Hampshire, Durham
- Household Closets and Storage Place. Michigan State College, Lansing
- Repair of Clothing. Ohio State University, Columbus

Grade Five—Unit Three

The Nation Grows Bigger and Stronger

A. Some pupil experiences

1. Living in the family

- a. Emphasize home production of commodities in the southern homes and contrast with our purchases from stores
- b. Encourage participation in the financial responsibility of the home
- c. Study forms of entertaining in the South and ways in which home entertaining may be made simple, charming, and inexpensive
- d. Emphasize the need for budgeting and wise use of funds (children at this age often begin to earn money)

2. Food

- a. Emphasize the need of stronger, healthier citizens as the nation grows in importance
- b. Study protective foods
- c. Demonstrate use of protective foods in salads; and in several plain, but attractive menus
- d. Teach the value of salads as snacks between meals (many of these may be prepared in the lunchroom and in the home)

3. Social courtesies

- a. Demonstrate and practice introductions and social etiquette of this period
- b. Encourage games which call for social courtesies

4. Housing

- a. Some consideration may be given to conveniences of this period and to general color harmonies in the Southern homes
- b. Some practice is desirable in study of pictures and picture hangings
- c. Flower arrangements are still simple and materials should be obtained from the child's environment

5. Clothing

- a. Study cotton and, if possible, have exhibit of cotton and early homespun cotton materials
- b. Practice in making simple dyes is an interesting laboratory experience

6. Care of sick

- a. Teach ways of helping patient to be more composed and at ease
- b. Emphasize necessity of avoiding disturbing conversation

B. Further development

This grade offers a good opportunity to introduce information concerning money, budgeting, and family finance. The study of living in the Southern States shows that homes were largely self-sufficient, in that they produced practically everything they needed. Most of the food was home-grown, much of the clothing came from the land, and even such household articles as furnishings, soap, and candles were made at home. Pupils will naturally contrast this situation with living now in Montana where even farming is largely specialized and things used in the home have to be purchased in stores.

At this age children begin to earn money by running errands, caring for smaller children, selling papers, and doing chores for others. Such subjects as saving with a purpose, buying war stamps, budgeting, spending wisely, and special savings for such occasions as birthdays and Christmas will influence the child to adopt a broader program of personal finance. Children are now beginning to buy for home needs at the stores and can get a direct picture of family costs.

The pupils, as a school or a grade room, may earn money through giving a cantata or play. Planning by the group for the best use of such earned funds will offer an excellent and practical means of experiencing the wise expenditure of money.

C. Bibliography

- Kelley, Higbee, and Stevens. *Personal Account Book for Girls*. Webb Publishing Company, St. Paul Minnesota
- Home Safety Magazine. National Safety Council, Inc., 20 N. Wacker Drive, Chicago
- Personal Account Books—Use Arithmetics, and Production Credit Association materials on budgets
- Red Cross Books on First Aid, and Home Care of the Sick. National Red Cross, Western Area, St. Louis. (Price around 75c)

Grade Six—Unit Seven**Latin America—Twenty Good Neighbors****A. Some pupil experiences****1. Living in the family**

Latin American countries are outstanding in fine family relations and so afford an excellent background for teaching kindly and considerate relations in the home

2. Food

a. Study foods, particularly fruits and condiments, that are raised in Latin America and used in the United States

b. Discuss menus of Latin America; why different from those of America; and reasons for difference

c. Prepare chili beans and fresh vegetables and serve in Mexican style

3. Social courtesies

a. Emphasize desirability of speaking in well-modulated voice

b. Encourage greater courtesy to older people in the home

4. Housing

a. Become familiar with words, such as patio and hacienda, that are characteristic of Latin American homes

b. Study difference in types of architecture and reasons for difference

c. Decorate gourds in Mexican manner to use at home and at school

5. Clothing

a. Study part rubber plays in daily living

b. Discuss colors typical of Latin American costumes

c. Make a colorful Mexican apron, belt, charm string, or pinafore, using sewing machine if possible

B. Further development

Children at this age will be interested in the study of the houses and types of house furnishings found in the Latin American countries. A study of building materials and types of architecture suitable for a year-round climate that is hot in the daytime and cool at night will show why adobe bricks are used in place of lumber; why there are few cellars; and why the roofs are not pointed. A study of the social life of these people will give an understanding of the use of patios, haciendas, and outdoor sleeping quarters. The Latin Americans' love of bright, colorful gardens is expressed wherever one finds water for irrigating and land for cultivation.

The drabness of Latin American buildings is offset by colorful decorations. Charm strings made from gourds, yucca and weed pots, bright pottery made from gumbo mud, and wall hangings woven from dyed scraps of materials or raffia, all can be made in the schoolroom. These materials are commonly found throughout Montana.

Adobe bricks can be made in the schoolroom and a small structure can be built from these. (Information on the ratio of straw and mud in the construction of adobe bricks may be obtained from the O'Malley Lumber Company, Phoenix, Arizona.)

Gay Mexican prints can be used for the materials for table mats, aprons, bags. Personal accessories such as Mexican beads, bracelets, and belts can be made in the school. These accessories are very inexpensive and make interesting gifts.

C. Bibliography

1. For teachers:

- Chase, Stuart, and Tyler, Marian. *Mexico; A Study of Two Americas*. The MacMillan Company, New York, 1933. 338 p. Price \$1.00
- Frank, Waldo D. *America Hispana*. Garden City Publishing Company, New York, 1940. 338 p. Price \$1.00
- Garvin, Helen. *Fun and Festival from Latin America*. Friendship Press, New York, 1935. 44 p. Price 25 cents

2. For pupils

- Armer, Laura Adams. *The Forest Pool*. Longmans Green and Co., New York, 1938. Price \$2.00
- Brandeis, Madeline. *The Little Mexican Donkey Boy*. Grosset and Dunlap, New York, 1931, 224 p. Price 50 cents
- Castillo, Carlos. *Mexico*. Wheeler Publishing Co., Chicago, 1939, 440 p. Price \$1.60
- Durfee, Burr; McMorris, Helen; and McMorris, John. *Mateo and Lolita*. Houghton Mifflin Co., Boston, 1939, 63 p. Price \$1.25
- May, Stella Burke. *Children of Mexico*. Rand McNally and Co., Chicago, 1936 (Unpaged). Price 10 cents
- Moon, Grace P. (Mrs.). *Solita*. Doubleday, Doran and Co., New York, 1938, 241 p. Price \$2.00
- Thomas, Margaret L. *Carlos, Our Mexican Neighbor*. Bobbs-Merrill Co., Indianapolis, 1938, 189 p. Price \$1.50
- Wheeler, Ida W. *Playing With Clay*. The MacMillan Company, New York, 1927, 116 p.
- Wilson, Eleanore H. (Mrs.). *The Magical Jumping Beans*. E. P. Dutton and Co., New York, 1939, 101 p. Price \$1.50
- Mexico. American Education Press, Supplementary Reader No. 414. The Press, Columbus, Ohio. Price 10 cents

Grade Seven—Unit Five**America Learns New Ways of Living****A. Some pupil experiences**

1. Living in the family
 - a. Learn how division and specialization in labor make home work easier
 - b. Dramatize buying from peddlers, from early stores
 - c. List the differences between the country homes the factory workers left, and the city homes they moved into
 - d. Show the advantages which cooking on a cookstove has over cooking in fireplaces
2. Food
 - a. Try to picture how the discovery of canning affected year-round diets
 - b. Show how the discovery of transportation made more foods available to city people
 - c. Compare Cyrus McCormick's reaper with a modern Montana combine. How did the reaper affect the price of flour?
3. Social courtesies
 - a. Show how colonial courtesies were difficult among factory workers
 - b. Write a paragraph explaining how labor unions gave new dignity to workers
4. Housing
 - a. Experiment to discover which gives more heat with the same amount of fuel—a stove or a fireplace
 - b. Try to picture how the space available in the household was affected when spinning and weaving were transferred from the home to the factory
 - c. Find descriptions of the luxurious quarters for passengers on the early steamboats
 - d. List building materials used in Montana today that would not be available without transportation
5. Clothing
 - a. Make a clothing "dictionary" defining such terms as: homespun, linsey woolsey, carding, weaving, stints, samplers, spinning jenny
 - b. Read a biography of Elias Howe
 - c. Do the reading and research necessary to explain why cotton replaced linen in clothing, in sails, and in industrial use

- d. Explain why, after the Industrial Revolution, even jungle natives began wearing cotton clothing
- e. Tell the story of Slater and his woolen mills
- 6. Care of the sick
 - a. Describe a surgical operation before the discovery of anesthetics and after
 - b. Make a list of foods appearing on your home table which could not have been there before food canning and preservation were discovered
 - c. In 1830, most people in cities dumped their garbage in the streets. Write a paragraph explaining how you think this affected health.

B. Further development

The period of the Industrial Revolution witnessed such remarkable changes in the production and use of textiles that it presents an interesting field for an approach to a study of the period covered by this unit. Research encyclopedias and supplementary books will show the class that there were no textile mills in the United States at the beginning of the nineteenth century. Whatever the American people did in the manufacture of clothing was done in their own homes. Using this fact as a point of beginning, the class could trace the rapid development of the textile industry, explaining how it was possible for a man, who in his youth wore only linsey woolsey and carefully reclaimed or repaired wool and linen clothing handed down by his father, was able to buy all types of cloth and ready-made clothing by the time he was middle-aged.

In many communities old people may still be found who will remember witnessing fulling, carding, spinning, and even weaving in their own homes. People who can tell of these experiences should be visited and given an opportunity to talk while the class listens. One child or a group of children could take each of the major textiles and make a study of it. Collections of samples of cloth can be made, and studied as to the process of manufacture and use.

Manual activities might include work with wool, since raw wool is obtainable in Montana. Pupils must learn how to wash the wool and if possible to card it, if a pair of cards can be obtained. An interesting departure here is to call attention to the fact that barbed wire fences in Montana do a pretty good job of wool carding every time a band of sheep goes under them. By corresponding with schools in the cotton states the class may exchange raw wool for a sample of cotton with the seeds still in it. In this way, the

pupils could make a first-hand comparison of the probable difficulty of processing raw cotton and raw wool.

In most sections of Montana a woolgrower or sheepman could be invited in to the class to explain different breeds of sheep and different kinds of wool. While studying wool and cotton, the class might also wish to make a study of flax raising in Montana. Two interesting questions which might develop are: First, Why Montana Flax is Raised for Seed and Not for Fiber; and second, What Caused the Failure of the Flax Fiber Mills Which Were Established at Conrad and Chinook Many Years Ago (about 1917).

As a culminating activity to Unit Five, the class might undertake the making of a wool quilt. Some instructions regarding this activity may be obtained from Mrs. Edith Harwood, State Home Economics Supervisor, Bozeman.

C. Bibliography

Evans, Mary and McGowan, Ellen Beers. A Guide to Textiles. John Wiley and Sons, Inc., New York, 1939

Hess, Katherine. Textile Fibers and Their Use. J. B. Lippincott Company, Chicago, 1936

Judging Fabric Quality. Farmers' Bulletin No. 1831. Superintendent of Documents, Washington, D. C., 1939. Price 5 cents

Eighth Grade—Unit Five**How We Live and Govern Ourselves in a War World****A. Some pupil experiences****1. Living in the family**

- a. List the forms of amusement that may be enjoyable, new experiences in the home
- b. Since cars may not be available during the war to transport members of the family to various gatherings, home "fun-nites" should be planned and practiced in the school and then organized by the children in their homes
- c. Encourage neighborhood "fun-nites". Study hobbies as to their usefulness, cost, and educational value.
- d. Prepare lists of magazines suitable to the interests of all members of the family

2. Consumer education

- a. Discuss the necessity of changed buying habits: for example—
 - (1) From nylon and silk to rayons and cottons
 - (2) From sugar to honey and syrups
 - (3) From spiced and highly-flavored foods to natural flavors
 - (4) From new garments to renovated clothes
 - (5) From commercial canned foods to home preserved and stored foods
- b. Study reasons for curtailed buying of gum, soft drinks, and candy bars
- c. Understand reasons for food scarcities as they relate to fruits, teas, coffee, cocoa, salmon, pineapple, and imported food products. Study food substitutes in menu planning.
- d. Become familiar with buying trends by reading magazines such as "Victory," U. S. Office of Education, Dept. of Interior, Washington, D. C.; "Consumer's Guide," Dept. of Agriculture, Washington, D. C.; and "Consumers Research Bulletin," Consumers' Research, Inc., Washington, New Jersey.
- e. Start a scrapbook of newspaper clippings concerning trends in buying
- f. Study the care and repair of household equipment
- g. Plan the day's menu on the basis of available foods which may be purchased on the family food budget

B. Further development

Pupils are introduced to the preparation of complete and balanced meals in home economics for the first time in the eighth grade. The work in this unit is centered around the supper meal, since this is the most usual and convenient

time during the school months for pupils of this age to be helping with food in the kitchen. Pupils usually desire to cook food at school that they can cook at home.

The new recipes using honey and syrup in place of sugar should first be demonstrated in the school and then practiced in the home. Pupils' thinking should be directed so that they will be able to fit the foods they have learned to prepare into plans which include the other foods to be served at a meal and also consider the other foods that have been served during the day. In this way an elementary introduction to wise food selection and a balanced day's dietary is practiced.

Since many of the eighth grade pupils are already helping with food purchasing for the home, it is not too early for them to gain some understanding of quantity buying, shopping courtesies, and food prices when marketing for food. This is important, since rural families cannot drive to the buying centers as often as in previous years, and large-quantity buying will become a necessity. The knowledge of curtailed buying of commodities, rising prices, and food substitutions which has been learned in school will help the children to become more efficient shoppers. This information will guide pupils to select foods they are able to have at home and also to awaken in them some realization of what the markets offer and foods which the families are able to afford, so that definite likes and dislikes, or food fancies, are somewhat diminished.

C. Bibliography

Diets to Fit the Family Income. United States Department of Agriculture, Washington, D. C.

Family's Food at Low Cost, The. United States Department of Agriculture, Washington, D. C.

Menus and Recipes for Lunches at School. Misc. No. 246, United States Department of Agriculture, Washington, D. C., 1936

Table Service for Busy Families. State Board for Vocational Education, Topeka, Kansas

Correspond with your County Nutrition Chairman for the latest information concerning food substitutes and recipes. The names of the county chairmen may be obtained through the State Department of Public Instruction, Helena.

VI. Curriculum Study of Home Economics Education in Junior and Senior High Schools

Teachers are urged to use the Course of Study for Junior and Senior High School Home Economics (1941) as a guide in choosing pupil experiences, and for further reference and teaching suggestions. A copy of this course of study is in the office of the local school superintendent. If this copy has been misplaced, a new one may be obtained from the office of the State Superintendent of Public Instruction, Helena, Montana.

MANUAL ARTS

General Suggestions

I. Introduction

Handwork as a part of the educational program provides one of the means by which pupils may experience creation and more complete learning. Children like to manipulate tools and materials. They have an urge to express ideas and emotions in drawing, painting, modeling, construction, and decorating. They acquire social habits and attitudes; and they learn to cooperate with other people by sharing their interests and activities.

The teacher must be able to do construction work with a fair degree of proficiency. She must be familiar with the various mediums that are available for use. She should have an understanding of the fundamental principles of fine arts so that she can guide her pupils to attain artistic as well as technical and informational satisfaction from their work.

II. Objectives

- A. To give the child a physical medium for expressing his ideas creatively
- B. To provide the child with manual dexterity and handiness with common tools
- C. To give the child an understanding of the usefulness of common materials

III. Procedure and Activity

A. Discovering the project

The handwork should grow naturally out of the activities or learning experiences carried on in school. In a one-room school all the pupils can often work on the same activity or project, each child selecting the phase of the project that most interests him. This gives training in group activity. The project should continue as long as the children are interested and learning is taking place. However, to maintain interest in the construction work, it should be completed when the unit is finished and it should not be run into the next unit.

B. Research

Before the pupils start actual construction of a project they must find objects, or pictures, or descriptions of objects, which they desire to make. This research may include study of community resources, books, encyclopedias, or it may take the form of excursions to interview people who have information on the desired subject. It is out of this research that learning definitely grows. The pupils should understand that research is an essential part of their creative work,

since without it the objects which they make may in no way represent fact. Pupils should learn to use the word "research" and should understand that research is necessary to human progress.

C. Planning

The project must be well planned if it is to have any real educational value. The teacher should outline the possible activities for a unit and evaluate the expected attainments in advance. If the work is not planned and guided, it easily becomes just "busy work" and the room becomes a junk shop. The plans must be within the child's understanding, and his creative ability must be encouraged at all times. He may work individually, have a distinguishable part in a group creation, or his individual effort may be lost in the final creation made by a group.

IV. Evaluating Outcomes

The child must be encouraged to progress toward some standard of accomplishment. He should have pride in his work and should not be made to feel that it is inferior. The outstanding work of the best pupils should not be emphasized as a standard of achievement as this will bring about improper reactions in the better pupils and in those who do not work as well.

Great care must be used to preserve the childlike quality inherent in spontaneous, individual work. If this quality is to be preserved the work should not be touched up by the teacher. Individual interests must be considered, and all children should not have to work on the same thing at the same time. Children's work should be as large as possible to give their large muscles free play.

V. Standards of Achievement

It is difficult to set up standards of achievement for a manual arts course; however, the pupil should be able:

- A. To make, read, and demonstrate, by a project, a good working model
- B. To know how to finish both an article of hard and soft wood to bring out its natural beauty
- C. To be of some assistance as the handy man about the house in mending wooden articles and electrical appliances
- D. To have some appreciation of the value of labor, because he knows something about how to do a job
- E. By his exploratory experience in the manual arts field to know something of the vocations which manual arts present

VI. Equipment

A. Benches

1. Heavy benches—three types

- a. Factory-made woodworking benches. These benches are made of hard wood and are excellent for all types of benchwork. The main advantages of factory-made benches are good surface, rapid-action vises, and, frequently, storage spaces built in the spaces under the benches. Their main disadvantage is their cost.
- b. Carpenter-made benches: A good carpenter can make very satisfactory workbenches at lower cost than those made in the factories. In Montana, these benches will usually be of soft wood. They should be made of two-inch material and should be given as smooth a working surface as possible. A vise should be built into each bench or one of the many types of rapid-action vises may be installed. For elementary boys and girls the bench should be thirty inches high. Lower benches can be made for smaller children, or if a standard height is kept for all benches, blocks and boxes can be provided for smaller children to stand on.
- c. Benches made by the class: Where benches are to be attached to a wall or built into a corner, they do not present too difficult a construction problem for seventh and eighth grade children, especially if they have had some training in woodworking. The advantages are first of all the pride which the children have in their construction; to this should be added the low cost, the possibility of carrying over the idea of construction to the child's own home workshop; and the adaptation of the homemade bench to the particular space which is available in the schoolroom for it. It is even possible for teachers and children to build movable benches, but these are much more difficult to construct. Some things to remember in either buying or building benches are:

(1) Dimensions

The bench should be about thirty inches from the floor and should not exceed thirty-two inches, even for large children. If it is built along a wall or into a corner, it will not be so useful for work with long boards and pieces of moulding, nor for work with large pieces of plywood, wallboard, or cardboard. A movable bench, or one which can be approached from all sides, has the advantages of accommodating more workers, and of furnishing a large surface for children who are working with large pieces of ma-

terial. A bench top, four and a half feet wide by five feet long, will accomodate four workers.

(2) Materials and construction

The heavy bench should be of two-inch materials and must be solid in its construction. Before building it, the class should study pictures of benches in school supply catalogs and actual benches in other schools or in shops. The bench must be well cross-braced so that it will neither stretch nor rack when used for planing and sawing. If cabinets or storage space are provided under the bench, the bench top should have an overhang of twelve inches on all sides so that the pupil can stand close against the bench.

(3) Vises

The type of vises used will depend upon the kind of work which is to be done. There should be a wood-worker's vise of the continuous screw-type or a general utility bench vise. If more than one vise is to be provided both of the types suggested could be used.

2. Light benches

Any substantial table top makes a satisfactory bench for such light work as paper cutting and folding, coping saw work, painting, tin-cutting, and light woodwork. One-inch boards, twelve inches wide, laid on top of school desks or chairs make satisfactory benches. In a rural school the several sizes of school desks will supply benches of several heights for use of older and younger children. Desks that are not in use can be pushed against the wall and made into permanent benches in this manner. Small tools can be stored in the desk bookspaces, and wrapping paper or cloth, suspended from the top board along the front of the desks, will preserve the desks from scars and paint stains.

B. Toolboxes and cabinets

1. Individual

Each child should be encouraged to accumulate individual tools which will meet his need in the work he will probably do. The child should have his own box for keeping these tools, and this box should be kept on a convenient shelf, in an empty desk, or on the workbench. Each box should have its owner's name painted on it and each box may be provided with a small hasp and lock.

2. Room toolbox

A box or cabinet should be built for the general tools which do not have such constant use. If a wall cabinet is used the same space should always be assigned to certain tools.

This space may be indicated by the outline of the tool painted on the back of the cabinet. This makes it easy to determine at a glance which tools are out of the cabinet.

C. Tables

Among the tables that are used for workbenches, for exhibits, and for books, there should be at least one which can be used as a lunch table and which can be set with cloth, dishes, and utensils for special occasions

D. Sawhorses

There should be three sawhorses built about six inches lower than those used by carpenters. If these are built so that they stack, considerable space will be saved in storing them.

E. Stove or hot plate

Each group of older children working in manual arts will need a stove or hot plate. In many rural schools the cooking stove in regular use in the teacherage will meet this need.

F. Cooking utensils

The room should have a sufficient collection of cooking utensils to permit the children to make such things as candy, cocoa, hot soup, cookies, and more complicated dishes which certain occasions might require. These utensils may be utilized to make flour paste, melt wax, soften fibers, and steam off stamps during the manual arts periods, and will also have innumerable uses in science classes. Empty coffee cans and lard buckets can be used to supplement the cooking utensils in many ways.

VII. Tools

While there are some tools which should be kept at the school at all times, many tools can be brought from home by the children as the needs arise. Rural and small town schools will be more fortunate than city schools in the matter of tools, since most rural homes have workshops and toolboxes which are well-stocked. Children should be taught to sharpen tools and to handle tools carefully, both for the care of the tools and to avoid accidents. The use of borrowed tools may be made a motive for pride in the care of another's property. The following tools should be kept in the school or should be quickly available when needed: tack hammer, claw hammer, plane, pliers, try-square, coping saws, sandpaper block, hand drill, drill bits, handsaw, screw clamps, blocks for shaping tin, paint brushes (three or four sizes), screw drivers, wood rasps, nail set, hack saw, wood chisel, tin snips, a few cooking utensils.

VIII. Suggestive Types of Inexpensive Materials:

Bottle caps, boxes (apple, cereal, cardboard), broom handles, clothespins, pipestem cleaners, soap, spools, wrapping paper, string and twine, muslin sacks, newsprint, bogus paper, glass, nails, tacks, screws, willow sticks, tin cans, oil and water paints, flour, glue, light strap iron, small pulleys, candles, pieces of two-by-four lumber, short one-inch boards, new or used shingles

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Suggested Activities Growing Out of the Social Science Units

I. Primary Grades

Many activity units, where handwork may be associated with classroom activities, are suggested on the unit worksheets. As some of these worksheets are not completed, activities are suggested here for certain units. The words "making," "carving," "building," and such descriptive activities are not used in these lists. The objects are merely named and variations in their construction will follow class needs.

A. The farm

1. A table or sandtable farm
2. Clay animals
3. Wood or cardboard farm buildings
4. Rag-doll seed testers
5. A windmill
6. A waterwheel in a stream

B. Pets

1. Houses for pets
2. Pet picture booklets
3. Models of pets
4. Small saddles
5. Movies illustrating growth of a pet
6. Feeding or watering troughs
7. A leather dog collar

C. Pilgrims or pioneers

1. Rugs or paper mats, woven
2. Dried apples
3. Homemade candles
4. Dyeing of cloth
5. Pilgrim frieze or mural
6. Collection of old guns or relics

D. Indians

1. Muslin or paper tepee
2. Dolls in Indian costumes
3. Indian family scene modeled
4. Beads and bone ornaments
4. Indian headdress of feathers
6. Indian drum (wet hide stretched on cheese-box)

E. Winter Unit

1. Bird feeders and shelters
2. Indoor games
3. Weather vane and snow measure
4. Sleds and barrel skis
5. A small tanned skin
6. Shelves on which to keep lunch buckets warm

F. Home Unit

1. Dollhouse or playhouse
2. Furniture, curtains, and rugs
3. Soap carved bathroom fixtures
4. Flag pole
5. Painted household furnishings
6. A loghouse of willow sticks

G. Christmas gifts

1. Toys
2. Christmas cards
3. Calendars
4. Paper wreaths and evergreen wreaths
5. Santa Claus table designs with crayon
6. Candlesticks

H. Spring Unit

1. Kites
2. Garden markers
3. Window boxes
4. Plant stands and trellises
5. Spool rack for holding garden tools
6. Birdhouses

II. Grades Four, Five, and Six

Many of the activities in these grades will be seasonable, but others will grow out of social science units

A. Transportation

1. Model airplanes
2. Model boats and ships
3. Painted lantern slides
4. Transportation frieze or mural
5. A Conestoga wagon with wheels and cloth cover
6. A harness or travois for a dog

- B. Activities to correlate with periods in history
 - 1. Relief maps of paper mache' or plaster-of-Paris
 - 2. Knitting looms
 - 3. Illustrated product maps
 - 4. Primitive home or castle table-scene
 - 5. Small rugs woven of rags or rove
 - 6. Tie-and-dye period table covers
- C. Christmas gifts
 - 1. Scrapbook covers of wood or cardboard
 - 2. Tied wastebaskets
 - 3. Bookends
 - 4. Figure doorstops
 - 5. Breadboards
 - 6. Wall or corner brackets
- D. Special days and programs
 - 1. Scenes for stage plays
 - 2. Costumes and wigs
 - 3. Wooden plaques of Lincoln and Washington
 - 4. Puppets for a puppet show
 - 5. Spinning wheels or fireplaces
 - 6. Paper mache' masks for Santa Claus or for Hallowe'en

III. Grades Seven and Eight

Many of the activities in handwork suggested in earlier grades should be continued in these grades or participated in by these older children. Children in these grades have wider fields of activity and richer reading programs which should suggest hand-work projects to them.

- A. Furnishings for room or workshop
 - 1. A bench of two-inch planks
 - 2. A lunch table
 - 3. Painted flower-pots to hang from chains
 - 4. Window curtains of printed burlap
 - 5. A bulletin board
 - 6. An iron foot-scraper
- B. Programs for special days
 - 1. Stage-sets
 - 2. Cake and coffee for visitors
 - 3. Christmas candy
 - 4. A Santa Claus sleigh
 - 5. A painted sign over the school door
 - 6. A gate or turnstile

C. Elementary electricity

1. A dry-cell door-bell set
2. Outside antenna for radio
3. Common wire splices
4. Miniature electric railway
5. Horseshoe magnets
6. Small electro-magnet

D. Household mechanics

1. Glass cutting and window glazing
2. Soldering for utensil repair
3. Plaster patching
4. Garden-hose connections
5. Oiling hinges and locks
6. Lawn mowers and bicycles

E. Painting

1. Oil paints
2. Water colors
3. Casein paints
4. Stain and varnish
5. Oils, lead, pigments
6. Care of brushes

F. Woodworking

1. Vegetable or chicken crate
2. Ladder
3. Flower boxes
4. Gate or turnstile
5. Shingle roof on doghouse
6. Board walk or fence

COURSE OF STUDY IN ARITHMETIC

General Suggestions

I. Introduction

Arithmetic is one of the fundamental tool subjects in the elementary school. By the very nature of the subject, certain facts, habits, and skills must be acquired. It is the accepted philosophy of this course of study that a distinct course in arithmetic will help the teacher direct pupil activity toward mastery of the necessary facts, habits, and skills.

Each teacher should be well acquainted with the entire field of arithmetic even though she may be teaching the subject in only one or more of the grades. In order to make it as convenient as possible to ascertain the grade placement of any fact, skill, or function included in the course of study, a "Grade Placement Chart" is provided whereby the teacher can tell at a glance the grade in which any item of learning in arithmetic is first introduced under the plan of this course.

A knowledge of, and skill in, the manipulation of the several functions of arithmetic is not to be considered as an end in itself. It is only insofar as arithmetic finds expression in everyday life and in the thinking processes of the individual that it has its excuse for being. With this purpose in mind, social applications of the principles learned in arithmetic have been suggested whenever possible, in connection with the other subjects of the curriculum. They will be found under the proper heading in each of the unit worksheets.

The study of arithmetic has come to be considered as a difficult task by many pupils. While part of the difficulty is real, some of it is imaginary, and much of it can be eliminated entirely. The real difficulties experienced by pupils in the study of arithmetic arise largely from the five following causes:

- A. Failure on the part of the pupil, and often on the part of the teacher, to appreciate the meaning and the social importance of the study of arithmetic
- B. The attempt to introduce many mathematical concepts before the pupil has reached sufficient mental maturity to thoroughly comprehend what is being taught
- C. The introduction of abstract processes in which the interest of the pupil is lacking because of the absence of any feeling of need and because of the inadequate manner of presentation
- D. The use of drill for which the pupil feels no need
- E. The acquiring of poor study habits by the pupil

A plea is here made that the teacher shall not necessarily attempt to teach arithmetic in the way that it was taught to her, but that she will acquaint herself with the underlying philosophy of the subject and with proven methods for the teaching thereof. It is suggested that she read several of the references included in this course. Much of the pupil's difficulty in arithmetic can be eliminated by excellence of teaching and by a thorough understanding of arithmetic on the part of the teacher.

In arriving at an answer to the question of what facts, skills, and materials should be included in the Course of Study in Arithmetic for the State of Montana and the grade placement of each, careful examination has been made of the following:

- A. The courses of study for the elementary schools of fourteen selected states*
- B. The opinion of experts in the field of arithmetic, as evidenced by their writings (See Bibliography, page 282)
- C. The findings of various curriculum committees**
- D. The plans of scope and placement of problems followed by the authors of eighteen recent series of arithmetic texts (see list, page 283)

In these eighteen texts it was found that there is only slight variation in the grade placement of most of the items of the arithmetic program. It was also discovered that the median placement of any one item in the texts studied is in exact agreement in 100 instances and that the variation is not more than one year on 62 of the items. Variations of more than one year exists in the case of only eight items.

*Arizona, California, Idaho, Kansas, Missouri, Nevada, New Mexico, North Dakota, Oregon, Texas, Utah, Vermont, Washington, and Montana

**1. Committee on Arithmetic of the National Society for the Study of Education (Report in 29th Yearbook, 1930). Public School Publishing Company, Bloomington, Illinois

2. Committee for Elementary Schools. Boston, Massachusetts, 1936

3. Committee on Tentative Course. Chicago Public Schools, 1937

4. Committees on Primary, Intermediate and Junior High Mathematics, Duluth, Minnesota, 1939

5. Arithmetic Committee for the Second and Third Grades, El Paso, Texas, 1938

6. Curriculum Revision Committee for Grades One to Six, inclusive, Louisville, Kentucky, 1938

7. Committee on Mathematics for Grades Seven to Eight, Louisville, Kentucky, 1939

8. Committee on Course of Study for the Elementary Grades
Fourth Grade—1935, Fifth Grade—1927, Sixth Grade—1940,
Scranton, Pennsylvania

It was further discovered that the grade placement of items in the Montana State-adopted arithmetic texts does not vary materially from the medians of either of the measures A and D above. The placement of items in this course of study has, therefore, been made to agree with the sequence of presentation in the adopted texts in most instances.

II. Objectives

- A. To develop an appreciation of the importance of mathematics in modern living
- B. To develop an understanding of the language of mathematics as applied to elementary arithmetic
- C. To develop an understanding and an appreciation of the Arabic system of notation
- D. To develop accuracy in the use of number facts and skills in arithmetic
- E. To develop maximum speed in arithmetic computation without sacrificing accuracy
- F. To develop the understanding and manipulation of number skills into such permanency that they will become useful life equipment for the individual
- G. To make arithmetic functional in situations requiring accurate quantitative thinking and analysis
- H. To develop habits of orderliness, exact thinking, and success and pride in accomplishment which will influence the living of the individual

III. Activities and Procedures

Space will not permit more than the brief mention in this course of study of a few of the principles touching on the method of teaching arithmetic. Teachers' manuals, the prefaces of arithmetic texts, and recent books and articles published on the subject of "Methods" are available for the teacher who would be informed in this field. Experimentation is continuous in connection with the teaching of arithmetic. New procedures are tried, tested, and accepted, or rejected, on the basis of their ultimate worth. The teacher who adopts a given method and then ceases to acquaint herself with new developments in the field, all too soon, may find her practices out-moded.

It is quite universally accepted that many of the facts and skills in arithmetic have been introduced, heretofore, too early in the life of the child. This course of study follows the premise that wherever it is optional in the adopted text, topics or parts thereof shall be deferred until the higher grade level. With this in mind the requirements of the first and second grades have been kept very simple, and it is recommended that these requirements be met by very informal methods.

In the past, the entire subject of arithmetic lost its appeal permanently for many pupils because of the overemphasis on an early introduction of formal drill. Unrelated formal drill should not be used in the first two grades, and in all grades drill should grow out of felt need wherever possible. This should not be construed as meaning that there should be no drill, or that it should be seriously reduced. Certain facts and skills in arithmetic cannot be sufficiently learned without considerable repetition of each fact and skill. Sufficient repetition or drill can be had without producing the deadening influence of formalism. Drill can be vitalized and made interesting if the teacher will refrain from the presentation of number facts in the 1-2-3 order, but instead present them in the form of delightful games, interesting experiences, or in connection with socially useful situations.

The obligation of the teacher does not begin with the new facts and skills which she must present to a given class in any given grade. Her responsibility extends over all of the facts, skills, and habits which have been taught in the study of arithmetic in the previous grades, toward the end that these elements of learning shall reach maximum efficiency and be a permanent habit for each pupil. This will require frequent use of all functions of arithmetic thus far learned, together with frequent testing and re-teaching where deficiencies are found.

With arithmetic, as with most subjects in the curriculum, group methods of teaching have been too widely employed. The teacher must not lose sight of the fact that children differ in many respects in the learning of arithmetic. She should make ample use of optional and supplementary material for the enrichment of the course for those pupils who evidence special aptitude in the subject. Through the use of diagnostic tests she should constantly search out the weaknesses of other pupils and re-teach for them the function needing special attention. Re-teaching of materials in the text, together with supplementary materials, will furnish the basis for overcoming deficiencies found. Much of the work, both with pupils who are slow to grasp the subject and with those who progress at a greater than average rate, must be individual rather than group instruction.

To insure complete understanding of the subject, it is essential that the pupil be thoroughly skilled in the vocabulary of arithmetic. Every field has its own terminology and arithmetic is no exception. It is sometimes necessary to introduce terms and symbols which are quite advanced for the capacity of the average child to grasp at a given grade level. Yet it is important that the teacher patiently teach the meaning of these terms and symbols, since without this knowledge the pupil does not understand what is required of him.

While each fact and skill to be learned in a course in arithmetic is important and must be well learned before understanding, accuracy, and speed can be expected, still the teacher must constantly remain aware of the fact that these facts, steps, processes, and skills constitute but the tools by means of which arithmetic functions in interesting and useful situations. It is through the application of arithmetic to wisely selected problems that the subject becomes motivated by interest. Frequent reference should be made by the teacher, not only during the arithmetic period but also in connection with the study of other fields, to the important part which arithmetic plays in the development of life. Pupils should be permitted to discuss such matters under the direction of the teacher in order to discover for themselves the practical applications of arithmetic which are involved.

The application of the tools of arithmetic in the solution of problems is the major goal of mathematics. Modern texts in arithmetic make extensive use of this element of learning. Problem-solving develops gradually as the child progresses through the course. Both direction and practice in problem-solving are essential. Much of the difficulty experienced by pupils in the solution of problems arises out of the lack of training in solving problems.

Since texts are written for universal use, and not to serve a specific locality, all problems included may not have the same appeal for pupils. Here the alert teacher must substitute problems which have greater appeal. These may be taken from supplementary texts or from problems arising out of the units of study, the experiences of the pupils, and the community in which they live. Under the heading "Applications of Arithmetic" on each of the unit worksheets the teacher will find suggestions which might help her discover and develop problems of interest for the pupils in all the human activities and achievements about which the class is studying.

The teacher and pupils, working together or independently, can assemble the necessary data for the formulation of interesting and vital problems in connection with these suggestions and others that may arise out of class discussions. Wherever possible, such problems should emphasize those functions receiving major emphasis in the study of arithmetic at that given period. They may also be used for the re-teaching of certain skills or for the enrichment of the course for the more rapid learners. Suggestions as to sources of data will be found in the bibliographies included in this course.

IV. Expected Outcomes

- A. A thorough understanding of the vocabulary of mathematics as applied in the field of arithmetic

- B. A thorough understanding of the Arabic system of numeration
- C. Instant, accurate recall of all required number facts
- D. Accuracy in the performance of skills taught
- E. The ability to perform the processes of arithmetic at a high rate of speed without loss in accuracy
- F. All facts, skills, and habits developed to a point of permanent usability
- G. The ability to apply the facts and skills learned with accuracy and ease in the solution of problems
- H. The ability to reason quantitatively
- I. An understanding of the importance of mathematics in civilized society
- J. The acquisition of desirable personal habits such as: orderliness, neatness, basing judgment on facts, perseverance, and personal satisfaction as the reward of achievement
- K. A favorable attitude toward further study in the field of mathematics
- L. An understanding of the relationship between mathematics and other fields of study

V. Testing Materials

A. Informal tests

1. Informal tests are to be found in textbooks on arithmetic and in the arithmetic workbooks which accompany them
2. Teachers of arithmetic are constantly devising informal tests of their own
3. Many teachers make use of the State examinations in arithmetic for the eighth grade

B. Standardized tests

1. Analytical Scales of Attainment in Arithmetic, Division 1, Grade 4; Division 2, Grades 5 and 6; Division 3, Grades 7 and 8, Forms A and B. Educational Test Bureau, Minneapolis
2. Brueckner Diagnostic Arithmetic Tests. Whole Number, Grades 3 to 8; Fractions, Grades 5 to 8; Decimals, Grades 5 to 8. Educational Test Bureau, Minneapolis
3. Buckingham Scales for Problems in Arithmetic, Division 1, Grades 3 and 4; Division 2, Grades 5 and 6; Division 3, Grades 7 and 8. Forms I and II for each division. Kansas State Teachers College, Emporia
4. Cleveland Survey Tests in Arithmetic, Grades 2 to 8. Public School Publishing Company, Bloomington, Illinois
5. Compass Diagnostic Tests in Arithmetic, The. Tests I and II, Grades 2 to 8; III, 3 to 8; IV and XVI, 4 to 8; V, VI, VII, VIII, and IX, 5 to 8; X, XI, XII, 5 and 6. One form of each test. Kansas State Teachers College, Emporia

6. Compass Survey Test in Arithmetic. Elementary examination, Grades 2 to 4, inclusive; advanced examination, Grades 4 to 8, inclusive. Forms A and B for each test. Kansas State Teachers College, Emporia
7. Every Pupil Primary Achievement Tests. (Arithmetic computation, reading problems, spelling, reading) Grades 1 to 3. Forms A and B. Kansas State Teachers College, Emporia
8. Hildreth Arithmetic Achievement Tests. Grades 2-6. Forms I and II. Bureau of Publications, Teachers College, Columbia University.
9. Iowa Every-Pupil Tests of Basic Skills, 1940 Edition. Test D—Arithmetic Skills. The Elementary Tests, Grades 3, 4, and 5; the Advanced Tests, Grades 6, 7, and 8.
10. Kansas Arithmetic Test. Test I, grades 3, 4, and 5. Test II, grades 6, 7, 8. Forms A and B for each test. Kansas State Teachers College, Emporia.
11. Kansas Primary Arithmetic Test. Grades 1-3. Forms A and B. Kansas State Teachers College, Emporia.
12. Knight-McClure Arithmetic Neatness Scale. Scott, Foresman and Co., Chicago.
13. Los Angeles Diagnostic Arithmetic Tests. Grades 2 to 8. Research Service Co., 4259 South Van Buren Place, Los Angeles
14. Modern School Achievement Tests. Short form—skill subjects. Elementary grades. Forms I and II. Bureau of Publications, Teachers College, Columbia University, New York.
15. Monroe Diagnostic Tests in Arithmetic. Grades 4 to 8. Public School Publishing Co., Bloomington, Illinois.
16. Monroe General Survey Scales in Arithmetic. Grades 3 to 8. Public School Publishing Co., Bloomington, Illinois.
17. Monroe Standardized Reasoning Tests in Arithmetic. Grades 4 and 8. Public School Publishing Co., Bloomington, Illinois.
18. Otis Reasoning Test (Reprint of Test 5 of the Otis Group Intelligence Scale) Grades 4 to 9, Forms A and B. The Bureau of Educational Research and Service, Extension Division, The State University of Iowa, Iowa City.
19. Peet-Dearborn Progress Tests in Arithmetic. Intermediate Series, Grades 4 and 5. Upper-Grade Series, Grades 6, 7, and 8. Houghton Mifflin Company, Chicago.
20. Progressive Achievement Tests. Primary Grades 1 to 3. Elementary Grades 4 to 6. Intermediate Grades 7 to 9. Forms A and B. Bureau of Educational Research and Service, Extension Division, The State University of Iowa, Iowa City.

21. Reavis and Breslich Diagnostic Tests in the Fundamental Operations of Arithmetic and in Problem Solving. Grades 7 to 9. University of Chicago Press, Chicago.
22. Stanford (New) Arithmetic Test. Primary tests, Grades 2 and 3. Advanced Grades 4 to 9. Forms V or W.
23. Stevenson Arithmetic Reading Test. Test I, Grades 4 to 6. Test II, Grades 7 to 9. Forms I and II (Form I for first testing) Bureau of Educational Research and Service, Extension Division, The State University of Iowa, Iowa City.
24. Stone Reasoning Test in Arithmetic. Grades 4 to 9. Forms 1 and 2. Bureau of Publications, Teachers College, Columbia University, New York.
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GRADE ONE

I. Introductory Statement

A knowledge of arithmetic is necessary for meeting life situations in the present and in the future. Many activities in which children take part require the use of some kind of arithmetic. In most instances, it has been found that children who enter the first grade have developed many simple number concepts as a result of their everyday experiences. The purpose of arithmetic instruction is to give the pupil increasing ability to think quantitatively in situations which he meets.

Surveys indicate that most primary teachers have accepted the point of view that formal drill in arithmetic is not the best method of developing quantitative thinking in Grades One and Two. In place of drill, teachers should utilize all number experiences which arise out of units of study and everyday situations to develop number meanings for children.

II. General Objectives

- A. To develop the arithmetic ability that the child must use in ordinary life activities
- B. To develop correct processes of thinking in terms of numbers that will make for better understanding of the arithmetic which comes later
- C. To develop a meaningful number vocabulary
- D. To develop an interest in and an appreciation of our number system

III. Activities and Procedures

The attainments for this grade are suggested in the grade placement chart attached to this course of study. At the beginning of the year the teacher should survey the class to determine the number concepts that the children have already acquired. The activities for the development of the following abilities are suggestions for the teacher, and it is hoped that she will supplement these activities with those of her own, and with material available from other sources.

The teacher should have a copy of each of two or three workbooks as well as other materials (see Bibliography) for obtaining further suggestions

- A. Counting, objectively and by rote, well enough to meet the child's needs in games, activities, and other everyday situations

1. Activities that might be used in developing a need for counting
 - a. Counting pupils in the room, pictures, pencils, words, etc.
 - b. Keeping score in games, choosing sides, jumping rope
 - c. Counting number of characters in a play, costumes, or other material needed
 - d. Counting number of books in the library, number checked out
 - e. Counting number of pages in the book, crayons in the box
 - f. Counting objects on the way to school
 - g. Using number games
 2. Expected outcomes
 - a. Ability to count accurately, objectively, and by rote
 - b. Development of interest in numbers through pupil needs
 3. Suggestions for teaching
 - a. Allow children to count whenever need arises in class-room activities
 - b. The teacher may point to each object in the beginning, but the child should develop ability to count objects without pointing
 - c. Concrete material should be used extensively in developing counting ability
 - d. Rote counting should follow objective counting
- B. Learning to write number symbols sufficiently well to meet needs of the child in his activities. Examples: age, grade, etc.
1. Activities for developing this ability
 - a. Numbering pages in booklets, or objects in booklet
 - b. Making signs or labels, lettering money, keeping records, such as day of month, birthdate
 2. Expected outcome

Ability to write numbers in sequence clearly and correctly
 3. Suggestions for teaching
 - a. Teach correct form for making numbers
 - b. Use large pencil or crayon to secure best results
 - c. Show relationships between number, symbol, and concrete object
- C. Recognizing and reading number symbols
1. Activities for developing this ability, using
 - a. Page numbers in books
 - b. Car licenses, street numbers, signs, advertising

- c. Price list and tags in stores and windows
- d. Numbers on calendars, in daily papers, on bulletin boards
- e. Numbers on face of clock (Arabic) or on thermometer
- 2. Expected outcomes
 - a. Correct written number response to a verbal number
 - b. Correct oral response to a written number
- 3. Suggestions for teaching
 - a. Develop the idea that each verbal number has a corresponding written symbol
 - b. Use pictures and objects in developing number symbols
 - c. Associate number symbols with corresponding number of objects
- D. Use of the clock in telling time
 - 1. Objective
 - a. Familiarity with position of hands of a clock at given hours
 - b. An interest in the clock, to make children want to tell time
 - 2. Activities for developing this ability
 - a. Everyday use of clock for mealtime, schooltime, getting up and going to bed
 - b. Use of clock in playing postoffice, time for collecting mail, closing hour
 - c. Community activities that are regulated by the clock: stores closing at certain hours, traintime, milk delivery, mailman, church hours, meetings
 - d. Language work in which stories of clocks are used
 - 3. Expected outcomes
 - a. Ability to tell time accurately to the nearest hour
 - b. Ability to estimate, roughly, units of time
 - c. Appreciation of the clock in our daily life
 - 4. Suggestions for teaching
 - a. Use every opportunity to have students use the clock in everyday activities
 - b. Make clock faces on paper and have children put the hands in proper position for certain activities
 - c. Make frequent mention of known periods of time—an hour for lunch, fifteen minutes for recess, a five-minute rest period, Church or Sunday School lasts an hour

E. Use of money

1. Objectives

- a. To identify different coins up to a quarter
- b. To learn that money has value and is used for buying things
- c. To develop some idea of the value of coins

2. Activities for developing this ability

- a. Helping parents buy groceries and supplies
- b. Buying material for school: pencils, tablets, milk
- c. Paying admissions to plays and games with toy money
- d. Using money in playing store
- e. Discussing cost of toys for Christmas, cost of Valentines
- f. Using money in buying postage stamps

F. Use of calendar

1. Objectives

- a. Ability to name days of the week
- b. Recognition of Sundays, birthdays, and important special dates such as Christmas, Hallowe'en, Washington's birthday
- c. Understand use of the calendar
- d. Ability to name the four seasons
- e. Comparison of number of days in a week with the number of days in a month

2. Activities for developing this ability

- a. Drawings of activities for each day of the week
- b. Drawings of activities for seasons of the year
- c. Birthday parties for class members
- d. School calendars showing school days

3. Expected outcome: interest in use of the calendar

4. Suggestion for teaching: find all possible opportunities to use the calendar

G. Measurement, common units of

1. Objectives

- a. To learn the use of one-half pint, pint, quart, inch, foot, pound, dozen
- b. To learn the use of money—penny, nickel, dime, quarter, half dollar, (buying, selling, and saving)

2. Activities for developing this ability

- a. Comparisons of sizes of milk and cream bottles and amounts of milk used by children
- b. Measurement of height of doors, ceilings, the Christmas tree

- c. A school store
- d. Collection of units of measure in the classroom where all children can see them and use them
- e. Measurements of lengths of tablets, desks, bulletin board, maps, pictures, books
- f. Measurement of pupil's height and weight
- g. Measurements in simple recipes used in the home
- H. Recognizing simple geometric figures
 - 1. Objectives
 - a. To distinguish such geometric forms as circle, square, triangle
 - b. To distinguish crooked, round, straight, short, long
 - 2. Activities for developing this recognition
 - a. Drawing different geometric forms on the board
 - b. Picking out different forms in the room such as square, circles, etc.
 - c. Finding things at home or in pictures that are squares, circles, etc.
 - d. Putting numbers from one to ten on papers and then drawing a square around number eight, etc.
 - e. Playing games in which children group themselves in geometric forms
- I. Simple fractions
 - 1. Objectives
 - a. To develop the meaning of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, of a thing
 - b. To develop the idea that a fraction of anything is one of its equal parts
 - c. To develop the idea of quarter and half-dollar as fractional parts of the dollar
 - 2. Activities for developing this ability
 - a. Sharing material in class; pupil gives half of his paper to classmate
 - b. Drawing objects on the board and dividing them into halves, thirds, quarters
 - c. Playing games when half are on one side, or a fourth are in each corner
 - 3. Expected outcomes
 - Ability to distinguish the whole and its parts
 - 4. Suggestions for teaching
 - a. Use concrete examples in meaningful situations
 - b. Use the vocabulary of fractions whenever possible. ("We are halfway through the book," "This half of the class may go first.")

J. Ordinals

1. Objectives: To show that position is determined by number
2. Activities for developing this ability
 - a. Use of names of persons sitting in first row, second row
 - b. A race to see who is first, second, third
 - c. Lines of objects or people with certain ones coming first, second

K. Counting by 2's, 5's, and 10's

1. Objectives: To develop rapid counting of objects
2. Activities to develop this ability
 - a. Objects grouped in 2's, children counting them
 - b. Coins for counting by 5's and 10's
 - c. Consecutive numbers written on board with every other number underlined
 - d. "Counting out" by 5's and 10's

L. Arithmetic vocabulary

1. Objectives

To teach concepts such as: more, less, as many as, taller, longer, shorter, larger, smaller, highest, lowest, heavy, light
2. Activities to develop this ability
 - a. Comparisons of children's height and weight
 - b. Charts showing different sized objects, for comparison
 - c. Games such as "Sometimes I'm Very Very Small"

M. Addition and subtraction developed through meaningful situations

1. Objectives

To develop ability to add or subtract numbers whose sums do not exceed ten
2. Activities to develop this ability—meaningful problems
 - a. "Here are three pencils, and now I am going to put two more here. How many are there?"
 - b. "I have four pencils, and now I will take one away. How many do I have left?"
 - c. Games such as: dominoes, bean bag
 - d. Devices for drill after the combinations are understood, to help make automatic the responses, such as the number wheel, flash cards

N. Suggestions for teaching

1. Teach only the easier combinations

2. Teach the reverse combinations as well as the corresponding subtraction fact, such as:

2	3	5	5
3	2	-2	-3
—	—	—	—

3. In adding two unequal numbers, the smaller should be given first and then the reverse. This prevents the counting habit.
4. It is preferred that the words **add** and **subtract** be learned rather than the symbols

IV. Measuring Results

See how well the child can answer such questions as:

- A. Let me see how well you can count. Try counting by two's to twenty. Count by five's to a hundred. Count by ten's to a hundred.
- B. How many days are there in a week? Name them.
- C. In what month is your birthday? How old are you?
- D. See if you can name the four seasons
- E. Point to the following things in the room: a ruler, a yardstick, a scale, a quart bottle, a pint bottle, a tall boy, a short boy, a wide door, a narrow door, a thermometer, a calendar, a page number
- F. Point to a penny, a nickel, a dime, a quarter, a half dollar. Would you rather have a penny or a nickel? Would you rather have a dime or a nickel? A dime or a quarter? How many pennies do you count to make a dime? A nickel?
- G. Point to the first desk in this row; the second book on the shelf; the third boy in the line; the fourth girl; the last page in the book
- H. At what time do we come to school, have lunch, go home, have recess in the morning, have recess in the afternoon, go to bed?
- I. About what time is it now? (To the hour or possibly the half-hour).
- J. How far do you live from the schoolhouse? From town?
- K. How many boys are there in the room? How many girls?
- L. Draw a line on your paper about an inch long. Draw a line on the board a foot long. Which is longer, a foot or a yard?
- M. Which is longer, a minute or an hour? A day or a week? A week or a month?
- N. Name a fat man, a thin man, a short man, a tall man, a heavy man, a light man
- O. Draw a circle on the board, a square, a straight line, a crooked line

P. Read these numbers as I point to them:.....

Q. Point to these numbers as I call them:.....

R. Miscellaneous questions growing out of the community or the probable experiences of the child, such as: On what days does the mailman come? At about what time does he get here? How many people eat at your table? How many days does a hen sit on eggs to make them hatch? How many loaves of bread does your mother usually make at a baking? How old is your brother? How many rooms has your house? How many cows have you at home? How many pigs? How many chickens? What size shoes do you wear? Cap? Dress?

Note:

The teacher must not expect all children to acquire an understanding of numbers at an equal rate, and must not demand that all children show the same achievement at the end of the year

V. Expected Outcomes

A. Numeration

1. Count objectively 1-20
2. Count, read, write to 100
3. Count by 2's to 20
4. Count by 5's to 50
5. Count by 10's to 100
6. Recognize groups of 2 to 6 (not counting)
7. Write word numbers to 10
8. Use ordinals up to "fifth"

B. Addition: know addition facts whose sums are 10 or less ✓

C. Subtraction: know subtraction facts, sum of which would be 10 or less ✓

D. Fractions: Fractional terms **half** and **one-half**

E. Measurements of geometric forms

1. Know the clock: hour, 1/2-hour, 1/4-hour
2. Know: inch, foot, pound, dozen, quart, pint, 1/2-pint
3. Know: the coins up to a quarter
4. Recognize: simple geometric figures

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GRADE TWO

I. Introductory Statement

The teacher of second-grade arithmetic should be aware of the numerous opportunities in classroom activities to develop number concepts in a meaningful way. While drill has a necessary part to play, it should not be used until understanding has been developed.

II. General Objectives

- A. To increase to a desirable degree the ability of the student in the fundamental facts, skills, and habits previously taught
- B. To extend the processes taught in the preceding grade as well as new ones taken up in this grade and to continue to develop these processes until permanency is established (see expected Outcomes for this grade)
- C. To give the child sufficient concrete number experience to meet his life needs
- D. To utilize every opportunity to develop an understanding of number situations
- E. To present number ideas in interesting, real situations
- F. To develop an interest in numbers so that the child will enjoy his number work and take pride in doing neat and accurate work

III. Activities and Procedures

The attainments for this grade are indicated on the grade placement chart attached to this course of study. The teacher should survey the class to determine the number concepts and arithmetic knowledge that is possessed by the group, as a result of their number work in the preceding grade and everyday experiences. Testing by means of devices similar to those shown under "Measuring Results" at the end of the first grade will help in this survey.

The activities for the development of the following abilities are suggestions for the teacher, and it is hoped that she will supplement these activities with those of her own and with material available from other sources.

The teacher should have one copy of each of two or three workbooks (See Bibliography) for obtaining further suggestions

A. Simple problems

1. Objectives

- a. To help the child interpret number situations as he meets them in life problems
- b. To develop the child's ability to work the problems that he encounters in real situations

2. Suggestions for teaching

- a. Use story problems wherever found in other units of study, such as: health, language

- b. Use problems that occur in the store, in traveling, and in all first-grade units
- c. Report problem situations encountered out of school

B. Measurement, common units of

1. Objective:

To give the child an idea of different lengths—inch, foot, yard; weights—pound, $1/2$ -pound; liquid measure—quart, pint, $1/2$ -pint

2. Activities for developing this ability

- a. Measurement with foot ruler marked into inches; use of the ruler to show the length of one inch, six inches
- b. Comparison of length of several lines on the board before and after measuring them
- c. Use of lines drawn to estimated lengths, then measured to see how accurate the estimates were
- d. Measurement of height and width of desk, chairs
- e. Measurement of and cutting of paper strips to use as book marks
- f. Use of quart, pint, and $1/2$ -pint bottles so that the children can see and use them
- g. Measurement of milk children use during the day
- h. Health chart records kept by children

C. Time

- 1. Objective: To develop the ability to tell time to the nearest quarter hour
- 2. Suggestions for teaching
 - a. Make a clock face out of cardboard and discuss clock with class, its importance
 - b. Have a sheet of paper with several dials drawn on it. Have a child place the hands in proper position for bed-time, lunch, time to go home.
 - c. Develop meaning of hour, half-hour, quarter-hour

D. Comparisons

1. Objectives

- a. To review and develop the meaning of comparison concepts as they occur in classroom activities
- b. To compare geometric figures, circle, square, triangle
- c. To compare lengths, sizes, weights, volumes, times, numbers

2. Terms (Vocabulary) to be developed

- a. Time: day, night, morning, afternoon, noon, midnight, tomorrow, yesterday

- b. Form: circle, square, round, straight, crooked, curved
 - c. Number: more, less, few, many, pair, dozen, couple, half of, twice as much, half as many, twice as many
 - d. Arrangement: top, bottom, side, inside, outside, between, before, behind, front, back, under, over, high, low, first, last
 - e. Measurement concepts: big, large, wide, long, tall, thick, heavy, light, small, narrow, short, thin, far, near, little
3. Suggestions for teaching: Use class activities to utilize comparative terms. They will be found in reading lessons, games, construction, excursions.

E. Notation and numeration

1. Objectives

- a. To develop a feeling of sequence of numbers
- b. To develop power to read and write numbers
- c. To bridge the gap between concrete and abstract numbers

2. Suggestions for teaching

- a. Have each child count by 1's as far as he can
- b. Make a chart of consecutive numbers leaving some out and have the child fill in blanks with correct numbers
- c. Have students write and read numbers to 1000
- d. Questions such as: 17 comes after what? or, what number comes between 20 and 22?
- e. Emphasize "teen" and "ty" endings as referring to ten
- f. Use number rhymes and value of notes in music
- g. Write symbols corresponding to verbal numbers, and speak numbers indicated by written symbols
- h. Pay particular attention to teaching numbers above 100
- i. Learn that 100's have three figures
- j. Each child should have a copy of this number table:

Table I

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

- k. Use four steps to develop abstract numbers
 - (1) Counting objects—purely concrete
 - (2) Counting pictures of objects
 - (3) Counting dots, circles, crosses, etc.,—semi-concrete
 - (4) Counting purely in symbols—abstract numbers
- F. Counting by 2's, 5's, and 10's to 100 (suggestions for teaching)
 - 1. Put objects into groups of two, five, or ten, to develop ability to count in this manner
 - 2. Use money idea in counting by 5's and 10's (use nickels for 5's and dimes for 10's)
 - 3. Write consecutive numbers on the board (child underlines every other one to develop counting by 2's)
- G. Roman numerals
 - 1. Objective
 - To be able to use Roman numerals when needed on clock dial
 - 2. Suggestions for teaching
 - a. Discuss the Roman numeral system and why it is used
 - b. Show that Roman numeral **II** means the same as **2**, etc.
 - c. Find Roman numerals in outlines, page numbers
- H. Money problems
 - 1. Objectives
 - a. To recognize coins to one dollar and know their values
 - b. To develop ability to use money in life situations
 - 2. Activities for developing this ability
 - a. Use coins to let child become familiar with them
 - b. Show that five pennies have the same value as a nickel; two nickels the same value as a dime
 - c. Use nickels and dimes in counting by 5's and 10's
 - d. Utilize projects in which children can make change
 - e. Name value of one coin in terms of another, such as:
 - (1) A nickel is what part of a dime?
 - (2) A dime is the same in value as how many nickels?
 - (3) A dime is the same as how many pennies?
 - f. Ask children what they can buy for each coin
- I. Combinations—Make out simple tests using the easier combinations to survey the ability of the class
 - 1. Objective
 - To make automatic the response of the sum or difference of two numbers

2. Activities for developing this ability

- a. Story problems closely related to daily activities
- b. Games, number wheel, stairssteps, etc.

3. Suggestions for teaching

- a. Use concrete situations for those children who have not developed an understanding of abstract situations
- b. Teach both equation and column form of addition and subtraction, thus:

$$\begin{array}{r} 2 + 3 = ? \\ 2 \\ 3 \\ \hline \end{array} \quad \begin{array}{r} 5 - 2 = ? \\ 5 \\ - 2 \\ \hline \end{array}$$

- c. In teaching addition, teach reverse forms

$$\begin{array}{r} 2 \\ 3 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ 2 \\ \hline \end{array}$$

Teach the first combination shown first (this will prevent the use of the counting method)

- d. Use problems in addition of three addends, such as:

$$\begin{array}{r} 2 \\ 3 \\ 4 \\ \hline \end{array}$$

and two addends of two figures each, with no carrying, such as:

$$\begin{array}{r} 23 \\ 42 \\ \hline \end{array}$$

Downward addition is recommended

- e. Use subtraction problems with two-place minuend and two-place subtrahend—no borrowing, such as 63 using the take-away method of subtraction

$$\begin{array}{r} 63 \\ - 41 \\ \hline \end{array}$$

- f. Teach the arithmetical terms of subtraction, the sign for subtraction, sign for addition

- g. Make use of community activities

- (1) Postoffice: buying stamps; closing and collecting hours
- (2) Stores: weighing things; buying things by the dozen, pound, etc.; why we have stores; what we buy at different stores
- (3) The telephone: how to use it; calling different numbers
- (4) Transportation: price of tickets; use of money in buying

- (5) The automobile: use of speedometer in measuring distance; work done at filling stations; arithmetic of various activities, such as, use of gasoline, oil, tire pressure. Have students bring numbers of license plates, keep record of license plates of other states, read license plates of cars.
 - (6) The radio—time of day when certain programs come on the air, length of time, station number
 - (7) Distance to school and length of time to come to school
- h. Make use of classroom activities
- (1) Checking attendance and counting pupils
 - (2) Number of sentences, words, or designs on the board
 - (3) Number of crayons, books, pencils, pictures, needed
 - (4) Pupils needed for program: boys, girls; costumes
 - (5) Number of times to bounce a ball, or skip rope
 - (6) Weighing for health program, getting height
 - (7) Telling time, noting time things happen
- i. Make use of playground activities
- (1) Scoring games, counting players, "counting out"
 - (2) Dividing pupils into equal sides
 - (3) Measuring schoolground, bases, walks
 - (4) Drawing squares, circles, for games or marbles
 - (5) Being first, second, etc., on slide or swings
- j. Make use of games and devices
- (1)

Eleven little birds	Twelve little soldiers
Sitting in a tree	Standing up so straight
Eight flew away	Dick took away four
And then there were.....	And that left.....
 - (2) Clock Game—Several cardboard clocks showing various times, as 7 a. m., get up; 7:30, breakfast; etc. The child unable to read the time passes clock to the next child. The child holding the largest number of clocks is the winner.
 - (3) House Game—One child stands in front of blackboard which has a picture of a house and asks what numbers live in Mr. 8's house. First child will say, "Do 6 and 2 live with Mr. 8?" Scorekeeper replies, "Yes, 6 plus 2 live with Mr. 8," and will write in the combination. Each child in the group will be called upon until Mr. 8's house is full.
 - (4) Climb the Ladder—Draw a ladder on the blackboard. Put a combination on each step, letting each pupil climb until he falls.

- (5) Post Office Game—A large number of cards with combinations on them are given to the child who is to be the postman. He puts his cards in a satchel or some sort of container and passes down the aisles. Each child has a number for a name. If the postman comes to the child whose number is 8, he must leave all combinations that make 8.
- (6) Baseball—Divide the class into teams. Draw on the board a baseball diamond with two numbers at each base and a number in the center. The teacher begins at the top, going around the diamond and pointing to any number at a base. The child at bat adds the number which is in the center. If an error is made, the opposing team calls "out." If no error, they call "home run," and a score is made for the side at bat.
- (7) Domino Device—As an aid in teaching combinations, pass colored paper circles on flash cards. The combinations in figures may be printed on the opposite side. This device may also be used to recognize groups of objects.
- (8) Yes or No—For example, Will a quarter buy more than a dime? Is a quarter less than a half dollar? Will a dollar buy more than four quarters?
- (9) Number Wheel—Draw a circle on the board, dividing it into ten sections, and place the numbers from one to zero in the sections and any number in the center of the wheel. Have the children add, or subtract, numbers in the sections to or from the number in the center.

V. Expected Outcomes

A. Numeration

1. Count by 2's to 100
2. Count by 5's to 100
3. Recognize Roman numerals I to XII
4. Read and write numbers to 1,000
5. Count ordinals above "fifth"

B. Know all 100 addition facts remaining

1. Add 3 one-figure addends (no carrying)
2. Add 2 two-figure addends (no carrying)

C. Subtraction

1. Know all remaining subtraction facts
2. Subtract 2 two-figure numbers (no borrowing)

D. Multiplication: multiplication concept

E. Division: division concept

F. Fractions: meaning and use of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$

G. Decimals and percentage

1. Coins to a dollar
2. Dollars and cents to \$5.00

H. Measurements of geometric forms—vocabulary of comparisons

I. Problem solving

1. Number stories
2. Solving simple problems

VI. Measuring Results

At first, this is oral, later written

A. Improvement in abilities measured at end of Grade One, (page 290)

B. Measurement of each skill as listed in the course for Grade Two

C. Measurement of grade achievement against expected outcomes (see Expected Outcomes above)

D. Informal testing

1. Test combinations after five have been acquired and frequently as others are added, instead of waiting till all are learned
2. Test for one process, either addition or subtraction at first. Later the test may contain both operations.
3. Test knowledge of number facts having local application
4. Test knowledge of addition and subtraction facts

E. Standardized tests for Grade Two (see pages 280-282)

VII. Bibliography

A. Workbooks

1. Clark, J. R., and others. Second Number Book. World Book Company, Yonkers, New York, 1939
2. Clark and Cushman. Numbers at Work. The MacMillan Company, San Francisco
3. Greenberg, Brownfield, Taylor. My Practice Book in Arithmetic, Book II. Benj. H. Sanborn and Company, Chicago
4. Jorgenson and Matthies and others. Making Numbers Tell True Stories, No. 2. E. M. Hale Company, Eau Claire, Wis.
5. Livingstone and McCartney. Number Practice in Child Life, Grade Two. Lyons & Carnahan Co., Chicago

B. Books for Teachers

1. Brownell, W. A. The Development of Children's Number Ideas in the Primary Grades. Supplementary Educational Monograph No. 35, (Grades 1 and 2). University of Chicago, 1928
2. Clark, J. R., and others. Primary Arithmetic Through Experience. World Book Company, Yonkers, New York, 1939
3. Morton, R. L. Teaching Arithmetic in the Primary Grades. Silver Burdett Company, Chicago, 1927

GRADE THREE

I. Introduction

The teachers of third-grade arithmetic should remember that previous instruction in the subject has been decidedly informal, dealing largely with simple number facts and skills closely related to the abilities and interests of the first and second grade pupils. Considerable new work is introduced in the third grade. The teacher must constantly keep in mind, in the teaching of these new processes, the fact that all learning must be made purposeful.

II. General Objectives

- A. To increase to a desirable degree the ability of the student in the fundamental facts, skills, and habits previously taught, as well as in the new ones taken up in this grade (see grade attainments on pages 299-305)
- B. To develop an independent knowledge of what to do and an ability to perform the operations in one-step problems
- C. To develop habits of neatness, accuracy, and speed
- D. To develop a pleasant and satisfying relationship of arithmetic with the child's everyday life
- E. To extend the child's appreciation of the importance of arithmetic through the social application of the facts and skills learned
- F. To increase the child's arithmetic vocabulary

III. Text

Social Utility Arithmetic*, by Strayer-Upton, Book One. American Book Company, Chicago, 1940

IV. Activities and Procedures

- A. The starting point. To start with the known and go to the unknown is axiomatic in all teaching, and arithmetic is no exception. The first step of the third grade teacher is to determine what habits, skills, and facts have been learned in the informal number work of the first and second grades. After this level has been determined, the teacher is in a position to build thereon, as well as to constantly refresh in the minds of the pupils the work already mastered in the lower grades. (See Measuring Results, Grade Two, page 300.)

*Social Study Arithmetics—Strayer-Upton, American Book Company, Chicago, 1940, are the basal texts in Arithmetic until 1947

B. Instruction and lesson assignment. Much research in methods of teaching has recently been done in all subjects, and especially is this true in arithmetic. New, desirable, and scientifically proved methods of teaching arithmetic are available today. They are minutely explained in the better arithmetic textbooks. In order that the students will have the benefit of these newer methods of presentation and teaching, the teacher is urged to study very carefully the methods as presented by the authors. This will help to eliminate the tendency on the part of the teacher to teach as she was taught instead of as she was taught to teach.

Careful assignment of each lesson will do much to alleviate future difficulties on the part of the student. There must be favorable conditions for study and attention. The child must know what is expected of him by the teacher and must see the reasonableness of the problem. If it is drill, he has a right to be shown that the material of the drill is pertinent to his own needs.

Without entering into a general discussion of the part the mathematics learned by the child now will play in his adult life it still appears that the more immediate the need can be made, the stronger the motive element will be.

C. Individual differences

A good teacher recognizes the individual differences among her students and makes provisions for such differences. The starred items in the text in use at the time this course of study is written provide excellent work for the more advanced students.

Due to crowded classes, the heterogeneity of the students, and many other reasons too numerous to list here, even the best teaching procedures may not guarantee complete mastery of skills by all students. Teaching in terms of the child's own experience, with testing and re-teaching whenever necessary, is still the program which appears most sure of producing results. Excellent tests with keyed references are provided in the text.

Each pupil should have access to number devices and tables for self-testing. Addition and subtraction may be checked on the accompanying table or on similar devices of the teacher's own planning.

Table 2

There are only one hundred possible number combinations.

Nineteen of them have zeros; these are:

0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9
0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0

Eighty-one of them do not have zeros; these are:

5 Add or
5 subtract

4 4 5
5 6 6 Add

4	5	6	6	6	Add or
4	4	4	5	6	subtract

3 3 3 3 4 5 6
4 5 6 7 7 7 7 Add

3 4 5 6 7 7 7 7 7 Add or
3 3 3 3 3 4 5 6 7 subtract

2 2 2 2 2 2 3 4 5 6 7
3 4 5 6 7 8 8 8 8 8 8 Add

2	3	4	5	6	7	8	8	8	8	8	8	8	Add or
2	2	2	2	2	2	2	3	4	5	6	7	8	subtract

1	1	1	1	1	1	1	1	2	3	4	5	6	7	8
2	3	4	5	6	7	8	9	9	9	9	9	9	9	9 Add

1	2	3	4	5	6	7	8	9	9	9	9	9	9	9	9	9	Add or
1	1	1	1	1	1	1	1	1	2	3	4	5	6	7	8	9	sub-
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	tract
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	

This arrangement of the possible number combinations shows many interesting things about numbers:

1. It shows in the horizontal columns all the combinations that can give the same sum when added
2. It shows that of the eighty-one combinations not using zeros, thirty-six give sums less than ten, nine give sums of ten, and thirty-six give sums greater than ten
3. It shows that in arithmetic there are many more addition combinations possible than subtraction combinations (without borrowing)

4. It shows that the number of combinations which a pupil must learn is comparatively small. Pupils are apt to think there is a never-ending number of these combinations.

D. Projects and social applications

Stress has been placed all through this course of study on the necessity of vitalized instruction. It is only through the application of arithmetic to the child's everyday life that the subject can become vital for him. The text has a large collection of carefully prepared projects to assist the teacher in making arithmetic a part of the child's life. The selection is largely suggestive. The alert teacher and the interested students will discover many other projects in the activities of everyday living which will develop a keen appreciation and knowledge of the social usefulness of arithmetic.

E. Group activities

1. Buying at the store, both real stores and schoolroom stores
 - a. Addition and subtraction on sales slips
 - b. Multiplying cents for extension on sales slip
 - c. Measures, such as quart, pint, pound, gallon, dozen
 - d. Weighing of common articles on a small scale
 - (1) A milk bottle, empty and full
 - (2) A pound of butter
 - (3) A pair of shoes
 - (4) A brick
 - (5) A lunch pail
 - (6) Eighth grade books
 - (7) A box of chalk
 - (8) A dozen eggs
2. Health charts
 - a. Gains and losses, for addition and subtraction
 - b. Calendar, days of the week and month
 - c. Inch, foot, yard, on height measure
3. Planting a Victory garden
 - a. Cost of seed packets, total cost
 - b. How far apart are seeds? How many to a row? Length of rows.
 - c. Fractional parts of "an inch-deep," as given on seed packets
 - d. A test-hill of beans or corn, to show increase
4. Keeping enrollment facts
 - a. Number who were present twenty days, for multiplication

- b. Calendar, days of week, month, school month
- c. The clock, tardy time, recess, dismissal time
- d. Number of boys, number of girls, total
- e. Number in each grade, total
- 5. Room parties
 - a. Cost and sales slips of lunch items
 - b. Multiplication for number of cookies, sandwiches, etc.
 - c. Fractional scores for groups participating in games
 - d. Addition and subtraction, for keeping scores
 - e. Division of cost to find share of each
 - f. Counting by two's, five's, ten's; "counting out"
 - g. Measuring milk for making cocoa, or sugar for candy
 - h. Measuring play courts for games, races, contests
- 6. Keeping the library
 - a. Calendar for days books are out, fines for overtime
 - b. Records of circulation—compare month by month
 - c. Problems dealing with cost of new books, cost of books on one shelf, or cost of all garden books
 - d. Number of books: by shelves, by cases, total
 - e. Measuring books for repair materials
 - f. Measuring length and height of shelves

V. Expected Outcomes

A. Numeration

- 1. Read and write numbers to ten thousands
- 2. Roman numerals XII to XXX

B. Addition

- 1. Add 3 three-figure numbers (no carrying)
- 2. Add 2 two-figure numbers (carrying)
- 3. Add 6 one-figure numbers (no carrying)
- 4. Add 3 three-figure numbers (single carrying)
- 5. Add 3 three-figure numbers (double carrying)
- 6. Use zeros in addition
- 7. Add 5 two-figure numbers (carrying)
- 8. Check addition
- 9. Add by endings
- 10 (Also see "Decimals"—G)

C. Subtraction

- 1. Subtract 2 three-figure numbers (no borrowing)
- 2. Subtract 2 two-figure numbers (borrowing)
- 3. Subtract 2 three-figure numbers (borrowing)

4. Subtract 2 three-figure numbers (double borrowing)
5. Use zeros in subtraction
6. Use additive method
7. Use take-away method
8. Check subtraction
9. (Also see "Decimals"—G)

D. Multiplication

1. Multiplication facts with 0's, 1's, 2's, 3's, 4's, 5's, and reverse
2. Multiply 2 figures by 1 figure (no carrying)
3. Multiply 2 figures by 1 figure (carrying)
4. Multiply 3 figures by 1 figure (carrying)
5. Multiply 3 figures by 1 figure (double carrying)
6. Use zeros in multiplication
7. Check multiplication
8. (Also see "Decimals"—G)

E. Division

1. Divide, using 2's, 3's, 4's, and 5's
2. Divide 1-figure by 1-figure (no remainder)
3. Divide 2-figure by 1-figure (no remainder)
4. Divide 3-figure by 1-figure (no remainder)
5. Use zeros in division
6. Check division

F. Fractions

1. Meaning and use of $\frac{1}{5}$
2. Fractions as applied both to single objects and to groups of objects

G. Decimals and percentage

1. Use decimal point in writing dollars and cents
2. Add United States money
3. Subtract United States money
4. Multiply United States money by 1-figure number

H. Measurements of geometric forms

1. Time— $\frac{1}{4}$ hour—5-minute intervals
2. Length—to yard
3. Liquid—to gallon
4. Weight—to pound
5. Mile
6. Month of the year
7. Seasons of the year

- I. Problem solving
 1. When to add
 2. When to subtract
 3. When to multiply
 4. When to divide
 5. Problems without numbers
 6. One-step problems
 7. Problems involving $1/2$, $1/3$, $1/4$, or $1/5$ of a number

VI. Measuring Results

- A. Measuring of individual achievements against the expected outcomes
- B. Informal testing
 1. Observe use of number facts outside of arithmetic periods
 2. Test all addition and subtraction combinations frequently, using both written and oral tests
 3. Test multiplication facts to 5's frequently
 4. Test knowledge of number facts having local application
- C. Diagnostic tests and promotion test in the text (see Index in text, pages 281 and 283)
- D. Standardized tests for third grade (see list, pages 280-282)

VII. Bibliography

A. Workbooks

The teacher is referred to the list of eighteen recent arithmetic texts on page 283. Workbooks can be obtained for these texts from the third to the eighth grades. Catalogs and literature describing the arithmetic materials published by the companies listed will aid the teacher in selecting workbooks suited to her needs.

B. Books for Teachers

1. Clark, J. R., and others. Primary Arithmetic Through Experience. World Book Company, Yonkers, New York, 1939
2. MacLatchy, Josephine H. "Counting and Addition," Educational Research Bulletin. Ohio State University, February 17, 1932
3. Morton, Robert L. Teaching Arithmetic in the Primary Grades. Silver Burdett Company, Chicago, 1937

GRADE FOUR

I. Introduction

The fourth-grade program consists of a continuation of the work already begun in earlier grades, plus the new work outlined in the grade placement chart. In this grade, the teacher stresses the importance of a thorough knowledge and application of the fundamental facts, skills, and habits of arithmetic. Overlearning is more desirable than underlearning.

II. General Objectives

- A. To increase to a desirable degree the ability of the student in the fundamental facts, skills, and habits previously taught, as well as in the new facts, skills, and habits outlined for this grade in the grade attainments (see pages 305-310)
- B. To further develop the arithmetical vocabulary of the student
- C. By the social application of arithmetic, to give the student an appreciation of the value of arithmetic in his everyday life
- D. To continue habits of neatness, accuracy, and speed

III. Activities and Procedure

A. The starting point

The first part of the fourth grade text is devoted mainly to a review of the work of the previous grades. The beginning step in the instruction in each grade is to determine where each student is in his arithmetical knowledge. Once this is determined the teacher must build from this level.

B. Instruction and lesson assignment

Much research in methods of teaching has recently been done in all subjects, and especially is this true in arithmetic. New, desirable, and scientifically proven methods of teaching arithmetic are available for the teacher. They are minutely explained in the better arithmetic textbooks, and the State adopted textbook* for Montana is especially good in this respect. So that the students will have the benefit of these newer methods of presentation and teaching, the teacher is urged to study very carefully the methods as presented by the authors. This will in part eliminate the tendency on the part of the teacher to teach as she was taught and not as she was taught to teach.

One of the first steps of good teaching is to provide favorable environment and a motive for study. After these have been provided, careful assignment and explanation will do much

*Social Utility Arithmetics, by Strayer, George D., and Upton, Clifford. American Book Company, Chicago, 1938, are the basal textbooks until 1947

to alleviate future difficulties on the part of the student. When the work has been started, the teacher must be on the alert not to prolong it past the span of attention of her students.

C. Individual differences, diagnostic tests, remedial work

A good teacher recognizes the individual differences of her students and makes provisions for such differences. The starred items in the adopted book provide excellent additional work for students whose abilities demand an enlarged and enriched program.

Even the best teaching, however, and the use of the best teaching procedures possible will not guarantee complete mastery to all students. Teaching in terms of the child's own experience, with testing and re-teaching whenever necessary, is still the program which appears most sure of producing results. Excellent tests with keyed references are provided in the text. There is no merit in the use of any test, however, unless re-teaching follows to correct the weaknesses which the test exposes.

D. Projects and social application

Stress has been placed all through this course of study in arithmetic on the fact that it is only through the application of arithmetic to the child's everyday life that the subject can become vitalized. Many suggestions for this work are given in the textbook. Further applications of functions learned to problems of vital interest are included in the unit worksheets. Suggestions are made for correlating the problems in arithmetic with local interests of the pupil, as well as with the time and the territory being studied in the unit. The teacher may provide the problems, have the pupils construct their own problems, or the teacher and the pupils may work together in building the problems. The lists on the worksheets are merely suggestive. The alert teacher and the interested pupils will find many other means of correlating the work based on the everyday life of the pupils.

E. Sources of problem material (lists of government bulletins and documents available may be secured from—Government Departments, The Government Printing Office, and The Superintendent of Public Documents, Washington, D. C.)

1. Population charts in geography books
2. Advertisements in local papers
3. Weather reports of United States Weather Bureau
4. Train and bus timetables
5. Bulletins from United States Department of Immigration
6. Recent articles dealing with National Defense

7. Advertising from Montanans Incorporated, Helena
8. Bulletins from United States Department of Agriculture
9. Bulletins from Montana State College, Bozeman

IV. Expected Outcomes

A. Numeration

1. Read and write numbers to hundred thousands
2. Read and write numbers to millions
3. Roman numerals XXX to M

B. Addition

1. Add 4 three-place numbers (carrying)
2. Add 4 four-place numbers (carrying)
3. Add 6 one-place numbers (carrying)
4. Add 7 four-place numbers (carrying)
5. Also see "Fractions" and "Decimals"

C. Subtraction

1. Subtract 4-place numbers (triple borrowing)
2. Subtract 5-place numbers (borrowing)
3. Subtract 6-place numbers (borrowing)
4. Zero difficulties
5. Also see "Fractions" and "Decimals"

D. Multiplication

1. Multiplication facts using 6's, 7's, 8's, 9's, 11's, 12's
2. Multiply 2-place numbers by 2-place numbers (carrying)
3. Multiply 4-place numbers by 1-place numbers (triple carrying)
4. Multiply 3-place numbers by 2-place numbers (carrying)
5. Multiply 3-place numbers by 3-place numbers (carrying)
6. Multiply by 10 and 100
7. Multiply by 2- and 3-place numbers ending in zero
8. Check multiplication by reversing multiplicand and multiplier
9. Also see "Decimals"

E. Division

1. Division facts using 6's, 7's, 8's, 9's, 11's, 12's, 1's
2. Dividing 1-place by 1-place (remainder)
3. Dividing 2-place by 1-place (remainder)
4. Dividing 3-place by 1-place (remainder)
5. Dividing mentally
6. Finding averages
7. Zeros in middle of quotient

8. Zeros at end of quotient
9. Writing remainder as a fraction
10. Two zeros in quotient
11. Also see "Decimals"

F. Fractions

1. Meaning of and use of $\frac{1}{6}$, $\frac{1}{7}$, $\frac{1}{8}$, $\frac{1}{9}$
2. Addition of simple like-fractions
3. Subtraction of simple like-fractions
4. Non-unit fractions $\frac{2}{3}$, $\frac{3}{4}$, etc.

G. Decimals and percentage

1. Multiply 3-place \$ & c by 2-place number
2. Multiply 4-place \$ & c by 1-place number (triple carrying)
3. Multiply 3-place \$ & c by 3-place number
4. Add columns of 4, 5, 6, 7, 4-place numbers with \$ & c
5. Divide 3- and 4-place \$ & c by 1-place number

H. Measurements of geometric forms

1. Read charts of weight and height
2. Decade, score, and century of time
3. Dry measure to bushel
4. Linear measure to mile
5. Weight to ton
6. Tell time to seconds
7. Days and weeks in year (leap year)
8. Use of thermometer
9. Making and reading maps to scale
10. Draw square, rectangle, circle, right angle
11. Use drawing compass
12. Find perimeter

I. Problem solving

1. Two-step problems

V. Measuring Results

A. Measurement of individual achievement in terms of the expected outcomes

B. Informal testing

1. Test all addition and subtraction facts frequently, using both written and oral tests
2. Test, frequently, all multiplication and division facts listed in expected outcomes (this testing should be largely written)

- C. Diagnostic tests and promotion test in adopted text and in supplementary texts
- D. Standardized tests for fourth grade (see list, pages 280-282)

VI. Bibliography

A. Workbooks

The teacher is referred to the list of eighteen recent arithmetic texts on page 283. Workbooks can be obtained for these texts from the third to the eighth grade. Catalogs and literature describing the arithmetic materials published by the companies listed will aid the teacher in selecting workbooks to meet her needs.

B. Books for Intermediate Grade Teachers

1. Bond, Elias A. *The Professional Treatment of the Subject Matter of Arithmetic*. Bureau of Publications, Teachers College, Columbia University, New York, 1934
2. Hildreth, Gertrude. *Learning the Three R's*. Educational Publishers Incorporated, Minneapolis
3. Lazar, May. *Diagnostic and Remedial Work in Arithmetic Fundamentals*. Board of Education of New York City, Bureau of References, 1928, Publication No. 21
4. Morton, Robert L. *Teaching Arithmetic in the Intermediate School (Volume II)*. Silver Burdett Company, Chicago, 1937

GRADE FIVE

I. Introductory Statement

Since the major outcome of the study of arithmetic is the ability to apply the facts and skills learned to problem solving, the work of the fifth grade is designed to extend this ability by providing: greater speed in skills already learned, new facts and skills, and a wider range of problems of increased difficulty

II. Objectives

- A. To increase to a desirable degree the ability of the student, in the fundamental facts, skills, and habits learned in the four previous grades, as well as new ones outlined for this grade in the list of desired outcomes
- B. To provide instruction and practice in the solution of problems, including 3-step problems
- C. To increase the pupil's appreciation of the importance of arithmetic and the desire to learn arithmetic

III. Activities and Procedures

The first responsibility of the teacher of fifth grade arithmetic is a recognition of her obligation for extending the learning of all of the previous grades. Facts and skills are introduced at various intervals throughout each preceding grade. The development of speed and accuracy in the use of these accumulated tools, and the further development of the desirable habits started are the responsibility of each successive teacher even though the responsibility for introducing these skills and habits belonged to teachers in previous grades. It is by this process that the fundamentals of arithmetic finally become permanent habit for the learner.

The teacher is cautioned not to rely too largely upon her own subjective judgment in evaluating the progress of her pupils. She is urged to make ready use of the diagnostic tests provided in the text and of other standardized diagnostic tests, as needed, in order that she may discover elements of learning that need to be re-taught. Tests and materials for this purpose are included in the general Bibliography.

The new work of the grade is found in outline form in the grade placement chart

A. Numeration

In numeration the work of this grade consists largely of information introductory to the work of decimals and includes the reading and writing of decimals to thousandths

B. Addition, subtraction, multiplication

Addition, subtraction, and multiplication in the fifth grade find their major concern in their application to fractions and decimals. The teacher must remember, however, that all addition, subtraction, and multiplication facts and skills involving whole numbers are also a responsibility of the fifth grade.

C. Division

In the case of division, it will be noted that long division, with a 2-digit divisor, is optional at the end of the fourth grade text. It is the recommendation of this Course of Study that this function be disregarded in the fourth grade and introduced in the fifth grade. Here again, the fifth grade teacher must further the use of all division facts and skills previously taught.

D. Fractions

Major emphasis in the fifth grade is on fractions. This emphasis includes the teaching of the fundamental concepts of fractions, addition, and subtraction of fractions (both like and unlike) and mixed numbers; multiplication of a fraction by a whole number and a whole number by a fraction; improper fractions; reducing fractions to lowest terms; and finding the common denominator. The child must understand fully the meaning and function of the numerator and the denominator.

E. Decimals

Addition and subtraction of decimals are also introduced in the fifth grade, together with the multiplication and division of decimals by whole numbers

F. Mensuration

A knowledge of and skill in the use of measures are essential in making numbers meaningful in the everyday problems of life. It is essential that the child shall understand the measures required and how to use them.

G. Problem solving

One of the important outcomes of the study of arithmetic should be the ability to concentrate on the completion of an assignment during the study period. The taking of drill and problem assignments home should be discouraged except in cases where a pupil, for one reason or another, needs homework and has home study facilities that make homework profitable.

Instruction and practice in problem-solving receive increased emphasis in the fifth grade and include the introduction of three-step problems. The child now has more tools at his command and can be called upon to solve a

greater variety of problems. Problems should be kept in conformity with pupil interest wherever possible. Social applications of functions learned to problems of vital interest are included in the unit work sheets. Suggestions are made for correlating the problems in arithmetic with local interests of the pupils as well as with the period and the territory being studied in the unit. The teacher may provide the problems, or have the pupils construct their own problem, or the teacher and the pupils may work together in building the problems. Sources of data for formulating interesting problems will be found in the Bibliography.

H. Sources of problem material

1. Supplementary texts
2. Reference works
3. United States Government Reports
 - a. Department of Agriculture
 - b. Department of Mines
 - c. Department of Interior
 - d. Weather Bureau
4. Railroad, bus, airplane, and steamship time-tables
5. World Almanac
6. Geography texts
7. Road maps
8. Physio-political geography maps
9. Travel folders
10. Newspapers
11. War maps
12. Local situations involving numbers

IV. Expected Outcomes

A. Numeration

Read and write decimals to thousandths

B. Addition

See "Fractions" and "Decimals"

C. Subtraction

See "Fractions" and "Decimals"

D. Multiplication

See "Fractions" and "Decimals"

E. Division

1. Long division, 2-place divisor
2. Dividing 3-figure dividend by 2-figure divisor
3. Dividing 4-figure dividend by 2-figure divisor

4. Dividing 5-figure dividend by 2-figure divisor
5. Dividing 3-, 4-, and 5-figure dividend by 3-figure divisor
6. Tests of divisibility by 9, 3, 5, 2 (Also see "Decimals")

F. Fractions

1. Fractional parts with other than "1" as a numerator
2. Improper fractions
3. Reducing improper fractions
4. Adding fractions of like denominators
5. Common denominator
6. Adding simple mixed numbers
7. Adding unlike mixed numbers
8. Adding unlike fractions
9. Reducing to lowest terms
10. Subtracting fractions of like denominator
11. Subtracting mixed numbers
12. Subtracting unlike fractions
13. Reducing fractions by cancellation
14. Reducing fractions by long division
15. Multiplication of fraction by whole number
16. Multiplication of whole number by fraction
17. Fractional or aliquot parts of a dollar
18. Decimal fractions

G. Decimals

1. Dividing 5-place \$ & c by 2-place divisor
2. Multiply \$ & c by fraction
3. Multiply \$ & c by mixed number
4. Read and write 3-place decimals
5. Addition of 1-, 2-, and 3-place decimals
6. Changing decimals to fractions
7. Multiplying decimals by whole numbers
8. Dividing decimals by whole numbers
9. Multiplying decimals by 10 and 100

H. Measurement of geometric forms

1. Making and reading line graphs
2. Length, including "rods"
3. Counting articles (dozens, gross, score)
4. Counting paper (ream, quire)
5. Square measure
6. Cubic measure
7. Making and reading bar graphs

8. Finding area of rectangles
9. Finding volume of rectangular solids
10. Measuring distances
- I. Problem solving
 1. Problems involving whole numbers and fractions
 2. Estimating answers
 3. Three-step problems
 4. Instruction in problem solving (steps—technique)
 5. Problems with denominate numbers

V. Measuring Results*

- A. Measurement of individual achievement in terms of the expected outcomes
- B. Informal testing
 1. Frequent review tests on the four fundamental operations
 2. Frequent tests on the operations of fractions covered in this grade
 3. Frequent tests on the operations of decimals covered in this grade
- C. Diagnostic tests and promotional tests in the adopted text and in the supplementary texts
- D. Standardized tests for fifth grade (see pages 280-282)

VI. Bibliography

A. Workbooks

The teacher is referred to the list of eighteen recent arithmetic texts on page 283. Workbooks can be obtained for these texts from the third to the eighth grades. Catalogs and literature describing the arithmetic materials published by the companies listed will aid the teacher in selecting workbooks to meet her needs.

B. Books for Intermediate Grade Teachers

1. Bond, Elias A. *The Professional Treatment of the Subject Matter of Arithmetic*. Bureau of Publications, Teachers College, Columbia University, New York, 1934
2. Hildreth, Gertrude. *Learning the Three R's*. Educational Publishers Incorporated, Minneapolis
3. Lazar, May. *Diagnostic and Remedial Work in Arithmetic Fundamentals*. Board of Education of New York City, Bureau of Reference, 1928, Publication No. 21
4. Morton, Robert L. *Teaching Arithmetic in the Intermediate School* (Volume II). Silver Burdett Company, Chicago, 1937

*The plan outlined here for measuring results, will be used in Grades Five, Six, Seven, and Eight

GRADE SIX

I. Introductory Statement

In their progress through the first five grades, the pupils have each year added to their collection of tools in arithmetic. Their work thus far has been concerned largely with the fundamental operations involving whole numbers, although fractions and decimals were started in the fourth grade. It remains then for the teacher of sixth-grade arithmetic to complete the teaching of the fundamental operations with fractions and decimals, and to introduce the pupils to the field of percentage. Since all these tools are but the means to an end, there should be adequate instruction and practice in the use of these tools in the solution of problems.

II. Objectives

- A. To extend the permanency of all fundamental facts, habits, and skills learned in the previous grades
- B. To teach the new work required in the sixth grade as outlined in the grade placement chart
- C. To increase the vocabulary of the pupils to include those meanings necessary for understanding arithmetic at the sixth-grade level
- D. To provide further instruction in problem solving and to increase, through practice, the ability of the pupils to apply skills and facts learned in the solution of problems
- E. To provide learning situations whereby the pupils come into a full appreciation of the importance of arithmetic in a complex civilized society
- F. To encourage the development of favorable attitudes towards the field of mathematics and related subjects

III. Activities and Procedures

The pupils arrive at the sixth-grade level with many facts, skills, and habits. Some facts, such as easy number combinations, were introduced in the first grade. Other facts and skills were introduced at various intervals, the latest being certain fundamental operations with fractions and decimals introduced in the grade just preceding. Since learning in arithmetic is a process of continuous development toward a maximum of attainment for each individual pupil, it is then the duty of the teacher of sixth-grade arithmetic to carry forward, toward this goal, all previous learning of the pupils in the subject.

A. The four fundamental processes

The four fundamental processes and numeration having been introduced in the five previous grades, the work of the sixth grade is concerned with increasing the accuracy and speed of pupils in the manipulation of these functions; and in the further application of these functions in the study of fractions and decimals. Multiplication and division of denominate numbers also are introduced in this grade.

B. Fractions

The remaining skills to be taught in connection with the study of fractions are introduced in the sixth grade and include the multiplication and division of fractions by fractions, and mixed numbers by mixed numbers, and the use of the cancellation method. Finding what fractional part one number is of another, and finding the whole when a fractional part is given, are also studied. These two uses of fractions are the basis for the second and third cases in percentage.

C. Decimals

Working with decimals should receive major consideration in this grade. Multiplication and division of decimals (both short division and long division) are studied in their entirety. The placement of the decimal point and the shifting of it to the right or to the left, as the case may require, in the multiplication or division of a decimal by 10, 100, 1000, etc., are also taught.

D. Percentage

A study of the meaning and use of percentage in Case One problems in percentage logically follows the study of fractions and decimals. While many texts do not take up a consideration of percentage at all until the beginning of the seventh grade, there are several advantages in including it at the end of the sixth grade. The fundamental concept of percentage follows so closely those ideas built up in the study of fractions and decimals, that it would seem to be advantageous to start building upon this ground work, which has been so recently laid, while it is fresh in the minds of the pupils. Then, too, since Case One is by far the most common of the three problems of percentage from the standpoint of use, starting it at the end of the sixth grade and re-teaching or thoroughly reviewing Case One at the outset of the seventh grade before taking up a consideration of the two remaining cases of percentage, should serve to fix the concepts and procedures involved in this important element of learning. In the application of percentage, simple problems involving interest are included.

E. Mensuration

Measures studied in the sixth grade are largely an extension of the measures learned to date and include cubical contents of dry measures and liquid measures. Compound denominate numbers are introduced, giving rise to the solution of more difficult problems.

F. Social applications

Social application of the facts and skills learned up to and including the sixth grade are to be found in connection with each of the units in the core curriculum. These suggestions can lead to the formulation of some vital and interesting problems centering around the regions being studied in the units or the community in which the school is located. The teacher may supply the necessary data and provide the problems for the pupils, or she may have the pupils construct their own problems, or the teacher and the pupils may work together in the matter. Valuable exercise in learning how to find needed information can result from having the pupils supply their own data for these problems.

G. Concentration on the assignment

The teacher of sixth-grade arithmetic should give special attention to the matter of increasing the ability of the pupils to concentrate. An assignment should be such that it is possible for the pupil to complete it during the study period provided. Taking the arithmetic assignment home should be discouraged or forbidden, except in such cases where additional time is required by a given pupil to complete assignments missed because of absence, or where the pupil needs additional practice in order to bring his proficiency up to a required standard.

H. Sources of problem materials

1. Supplementary texts
2. Reference works
3. United States Government Reports (address various bureaus at Washington, D. C.)
 - a. Department of Agriculture
 - b. Department of Mines
 - c. Department of Interior
 - d. Army, Navy, Marine Corps Recruiting Stations
 - e. Weather Bureau
 - f. Superintendent of Documents
4. Railroad, bus, airplane, and steamship time-tables
5. World Almanac
6. Geography texts

7. Road maps
8. Physio-political geography maps
9. Travel folders
10. Newspapers
11. Bulletins and literature about Montana, from such sources as:
 - a. The Anaconda Copper Mining Company, Butte
 - b. The Montana Power Company, Butte
 - c. The State Historical Library, State Capital, Helena
 - d. The State Nursery Company, Helena
 - e. The Federal Art Project, 111 North Montana Street, Butte
 - f. The Montana State College, Bozeman
 - g. The Montana Labor News, Butte
 - h. The State University, Missoula
 - i. The State Board of Health, Helena
 - j. Montanans Incorporated, Helena
 - k. The Farmer's Union, Leader Building, Great Falls
 - l. The Greater University of Montana, Helena

IV. Expected Outcomes

A. Numeration

1. Read and write decimals to ten thousandths
2. Read and write numbers into billions
3. Read and write decimals to millionths

B. Addition

1. Addition of denominate numbers
2. Also see "Fractions" and "Decimals and Percentage"

C. Subtraction

1. Subtraction of denominate numbers
2. Also see "Fractions" and "Decimals"

D. Multiplication

1. Multiplication of denominate numbers
2. Also see "Fractions" and "Decimals and Percentage"

E. Division

See "Fractions" and "Decimals and Percentage"

F. Fractions

1. Changing mixed numbers to fractions
2. Least common denominator
3. Multiplying fractions by fractions
4. Cancellation in multiplication of fractions

5. Multiplying mixed numbers
6. Dividing mixed numbers by whole number
7. Dividing fractions by whole number
8. Dividing fractions by fractions
9. Dividing mixed numbers by mixed numbers
10. Finding fractional part one number is of another number
11. Finding whole when fractional part is given

G. Decimals and Percentages

1. Changing name of decimals by adding or striking off final zeros
2. Comparing decimals
3. Multiplying 2-place decimal by 1-place decimal
4. Multiplying 3-place decimal by 1-place decimal
5. Multiplying 2-place decimal by 2-place decimal
6. Using decimals to avoid remainders in division
7. Rounding off results in decimals
8. Multiplying decimals by 1,000
9. Dividing decimals by 10, 100, 1,000
10. Incomplete decimals
11. Dividing 2- and 3-place decimals by 1- and 2-place decimals
12. Dividing 2-place decimals by 3-place decimals
13. Putting decimal point in right place in division of decimals
14. Writing decimals as %
15. Writing % as decimals
16. Language of percentage
17. Finding given % of a number
18. Fractions as short method of finding % of a number
19. Changing the common percentages to fractions
20. Meaning of 100% of a number

H. Measurements of geometric forms

1. History of measurements
2. Compound denominate numbers
3. Cubical contents of dry measure
4. Cubical contents of liquid measure

V. Measuring Results

See plans listed at end of Grade Five (V. Measuring Results)

VI. Bibliography

A. Workbooks

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3. Lazar, May. *Diagnostic and Remedial Work in Arithmetic Fundamentals*. Board of Education of New York City, Bureau of Reference, 1928, Publication No. 21
4. Morton, Robert L. *Teaching Arithmetic in the Intermediate School* (Volume II). Silver Burdett Company, Chicago, 1937

GRADE SEVEN

I. Introductory Statement

It is the aim of this Course of Study to give a broad outlook in the field of mathematics, and to develop those ideas and concepts which underlie all quantitative thinking. The work of the seventh grade will consist of reviews of the work in the fundamental processes, new types of problems in percentage, problems in mensuration and geometric design, and the solving of difficult written problems. Believing that the social applications of arithmetic should receive greater attention, it is the intent of this Course of Study outline to fully utilize this practical relation of the child and his environment.

II. Objectives

- A. To increase and extend toward permanency the fundamental facts, habits, and skills of previous grades
- B. To develop a more adequate concept and understanding of percentage
- C. To further develop the knowledge of the different kinds of graphs and their uses
- D. To provide practice in the use of simple drafting tools
- E. To understand and use the geometric formulas for area
- F. To learn the steps involved in the solving of problems of everyday life
- G. To acquaint the pupil with social and business practices

III. Activities and Procedures

Computation skill is not an end in itself, but a tool for problem solving. It would be unfortunate if a child should remark "Oh, we never have any of those problems with words in them in school, and so I don't know how to do them". Traditionally, teachers find it more expedient to solve children's natural problems for them rather than to allow them time to think through the problems for themselves. If the essence of the learning process is discovery, then learning must come about by way of creative work. Seek an approach through interest. Practical problems serve this purpose. The texts in use in Montana are replete with reasoning problems growing out of natural situations. It is strongly suggested that these be generously used.

Suggestions which might be followed by the teacher are:

- A. Organize teams and compete for accuracy and speed in the drill of fundamentals
- B. Solve problems in general practice
 - 1. Read the problem carefully, understand all terms used
 - 2. Determine the question to be answered

3. Decide upon the known facts
4. Determine the processes needed in solution
5. Estimate the results
6. Perform the computations accurately and carefully
7. Check the results
8. Make social applications: war maps, steamships, trains, airplanes, airmail, telephone, telegraph, radio, air races, land erosion, motor boats, newsstand, kites, calendar, graphs and figures from Montana's Production*

C. Percentage

1. Review the percentage facts used in previous grades
2. Give diagnostic tests to determine the phases to be stressed
3. Practice finding a per cent of a number, what per cent one number is of another, and the number when a per cent is given
4. Form a knowledge of the meanings of the vocabulary of percentage
5. Practice changing decimals to per cents, to common fractions, and the reverses
6. Teach the use of per cents—less than 1%, and more than 100%
7. Introduce commissions, discounts, profit and loss, simple interest, per cent of loss
8. Make social applications
 - a. Compute class and individual attendance
 - b. Compute batting averages in baseball
 - c. Compute population increase or decrease in Montana towns and cities
 - d. Compute interest on homes
 - e. Compute trade discounts
 - f. Find out how money is put to work
 - g. Find cost of operating machinery

D. Social and business practices:

1. Banking
 - a. Discuss banks, their use, purpose, service
 - b. Visit a bank
 - c. Open a school banking account
 - d. Trace the travels of a check
 - e. Encourage thrift

*University of Montana Economics Classes, Montana's Production, The Phillips County Press, Malta, Montana, 1941

2. Budgeting
 - a. Explain the meaning of the term
 - b. Budget allowances
 - c. Plan a family budget
3. Meter reading
 - a. Explain the units of measure
 - b. Follow the suggestions in the State-adopted text
4. Social applications: adding and calculating machines, making change, selling automobiles, reading meters, making out bills, deposit slips, promissory notes, bank discounts, foreign moneys, exchange, thrift

IV. Expected Outcomes

A. Addition

See "Fractions" and "Decimals and Percentage"

B. Subtraction

See "Decimals and Percentage"

C. Multiplication

1. Checking multiplication by casting out 9's
2. Also see "Decimals and Percentage"

D. Division

1. Checking by casting out 9's
2. Also see "Decimals and Percentage"

E. Decimals and percentage

1. Short cuts in percentage
2. Multiples of 100%
3. Percentages greater than 100%
4. Percentages less than 100%
5. Comparing numbers by using percentages
6. Percentage of increase and decrease
7. Finding what percentage one number is of another
8. Finding the whole when the percentage is given

F. Mensuration

1. Finding medians
2. Measuring gas and electricity
3. Pictographs
4. Interpreting graphs
5. Use of simple drafting tools
6. Drawing to scale
7. Interest formulas
8. Circle graphs

9. Drawing geometric figures
10. Angles
11. Use of protractor
12. Area of plane surfaces
13. Formulas
14. Circumference of circle
15. Area of circle
16. Area of triangles
17. Area of parallelograms and trapezoids

G. Problem solving

1. Estimating answers in percentage
2. Steps in problem solving

V. Testing Results

See plan listed at end of Grade Five

VI. Bibliography

A. Workbooks

The teacher is referred to the list of eighteen recent arithmetic texts on page 283. Workbooks can be obtained for these texts from the third to the eighth grades. Catalogs and literature describing the arithmetic materials published by the companies listed will aid the teacher in selecting workbooks to meet her needs.

B. Books for the Teacher

1. Kendrick, M. S., and Seaver, C. *Taxes: Benefit and Burden*. Newson and Company, New York, 1936
2. Morton, R. L. *Teaching Arithmetic in the Elementary School*, Vol. III (7th and 8th grades). Silver Burdett Company, New York, 1937
3. Schaaf, W. L. *Mathematics for Junior High School Teachers*. Johnson Publishing Company, Richmond, Virginia, 1931
4. Upton, Clifford B. *Studies in the Teaching of Arithmetic*. Bureau of Publications, Teachers College, Columbia University, New York, 1927
5. National Council of Teachers of Mathematics. *Third Yearbook*. Bureau of Publications, Teachers College, Columbia University, New York, 1928

GRADE EIGHT

I. Introductory Statement

Topics taught in modern schools are chosen principally because they are socially useful to the pupils in connection with their immediate and future needs. It is the policy of the Course of Study in Arithmetic to follow this criterion in the choice of materials, with the result that obsolete topics, artificial problems, and discarded business practices have all been excluded. New topics of social utility are included to stimulate the interests and activities of the pupils.

In addition to the study of arithmetic, the work in the eighth grade includes the graph, the formula, simple geometry, and the simple equation. Full provision is made for pupils of varying degrees of ability. Several series of tests are provided to keep alive computational skills. Considerable time must be spent in developing projects related to the school and the environment.

II. Objectives

- A. To increase and extend toward permanency the fundamental facts, habits, and skills of previous grades
- B. To train the pupil to compute easily and accurately, and to solve the numerical problems of everyday life
- C. To develop the habit of thinking about number relationships in terms of the precise phraseology and symbolism of mathematics
- D. To give the pupil much useful information with respect to business and social practices
- E. To develop the ability to interpret and appreciate many phases of our economic and civic life involving financial or quantitative data
- F. To acquaint the pupil with the geometric aspects of his environment

III. Activities and Procedures

- A. A list of expected outcomes appears at the end of the arithmetic course for this grade. It is urged that the teacher study this carefully to discover which of the various functions of arithmetic are stressed in this grade.
- B. Review: Early in the year, give standard tests to determine the work needed, giving special attention to problem solving
- C. Measurements
 1. Demonstrate board measure; visit a lumber yard, estimate lumber, find comparative lumber costs in eastern and western Montana, find Montana's lumber production

2. Learn the formulas for area and volume of common geometric figures
3. Social applications—tanks, silos, water troughs, flower beds

D. Equations

1. Translate written statements of problems into equations
2. Learn to balance an equation

E. Business and social practices

1. Discounts—definition of, reasons for; meaning of successive discounts
2. Banking: learn new terms—capital stock, surplus, stockholder, Federal Reserve, national bank, state bank, Federal depositor's insurance, assets, certified check, cashier's check, mortgage, bank drafts, promissory notes; purpose and services of bank, bank examinations, Montana State Banking Department
3. Interest on school and county warrants, bank deposits, promissory notes, postal savings, Victory bonds
4. Compound interest in use in savings banks, use of interest table, legal Montana interest rates
5. Social applications
 - a. Chain discounts
 - b. Commercial banks
 - c. Travels of a check
 - d. Clearing house
 - e. Bank profit
 - f. Kinds of notes
 - g. Carrying charges
 - h. Finance companies
 - i. Loan agencies

F. Investments

1. Advantages and disadvantages of installment buying
2. Building and Loan Associations—how many in Montana?
 - a. Have a Building and Loan officer visit the school
 - b. Trace the purchase of a home through a Building and Loan Association
3. Stocks and stock companies, corporations
 - a. Discuss the organization of a corporation; explain:
 - (1) Par value
 - (2) Market value
 - (3) Dividends
 - (4) Common stock
 - (5) Preferred stock
 - (6) Brokerage
 - b. Read stock quotations in a newspaper, and use as problem material those of Montana companies

- (1) Railroads
 - (2) Mining
 - (3) Power
 - (4) Sugar
 - (5) Oil and gas
 - c. List local corporations
 - d. Study how cooperative organizations work
 - e. Explain the meaning and uses of bonds; give some local uses such as city, county, and school district bonds
 - f. Look up bonded indebtedness of your school district, and interest rate
4. Social applications
- a. Iron and steel industry
 - b. Oil and gas industry
 - c. Railroads
 - d. Mortgages
 - e. Buying a home on the installment plan
- G. Insurance
1. Stress property insurance, knowing these facts:
 - a. Rates on \$100 valuation
 - b. Property not often insured at full value
 - c. Fire rates vary according to locality and type of building
 - d. Profits of insurance companies
 - e. Possibilities of cooperative insurance
 2. Find all facts possible about Montana State hail insurance
 3. Know these terms:

a. Insurer or underwriter	f. Premium
b. Insured	g. Agent
c. Beneficiary	h. Commission
d. Policy	i. Adjustor
e. Face	
 4. Social applications:

a. Life	e. Hail
b. Accident	f. Liability
c. Fire	g. Car
d. Crop	h. Other types

H. Taxes:

1. Why paid, by whom, how, when, how determined?
2. Know the kinds:
 - a. Property
 - b. Income
 - c. Inheritance
 - d. Gasoline
 - e. Poll
 - f. Duties
 - g. Sales
 - h. Internal revenue

I. Geometric figures, ratio and proportion, symmetry:

1. Construct geometric designs after a study of the use of lines and figures
2. Correlate ratio, proportion, symmetry, and similar figures
3. Find inaccessible distances without measuring
4. Social application
 - a. Playground
 - b. Numbering a township
 - c. Subdivisions of a section of land
 - d. Baseball or football field

J. Metric system

1. Teach the common metric tables: linear, square, and cubic units
2. Teach units of measure in length, weight, and capacity, with English values

K. Squares and square root

1. Know the table of squares to 25
2. Show the inverse operation of squares and square root
3. Teach how to find, approximately, square roots by estimating the square root of a problem and then squaring this figure

IV. Expected Outcomes**A. Numeration**

Positive and negative numbers

B. Addition

1. Adding numbers with like signs
2. Adding numbers with unlike signs
3. Adding 3 or more signed numbers
4. Adding like terms
5. Adding like terms in equations

C. Subtraction

Subtracting positive and negative numbers

D. Division

1. Division in formulas
2. Comparing numbers by division

E. Percentage

Percents smaller than 1%

F. Mensuration

1. Speed formulas
2. Interest tables
3. Measuring lumber
4. Volume of prisms
5. Volume of cylinder
6. Area of cylinder
7. Volume of pyramid
8. Lateral area of pyramid
9. Volume of cone
10. Area of sphere
11. Volume of sphere
12. Algebra
13. Equations
14. Simple geometry
15. Ratio and proportion
16. Square root
17. Metric system

G. Problem solving

1. Solving problems with simple algebra
2. Solving problems using geometric principles
3. Solving problems using ratio and proportion
4. Solving problems with positive and negative numbers

V. Testing Results

See plan listed at end of Grade Five

VI. Bibliography**A. Workbooks**

The teacher is referred to the list of eighteen recent arithmetic texts on page 283. Workbooks can be obtained for these from the third to the eighth grades. Catalogs and literature describing the arithmetic materials published by the companies listed will aid the teacher in selecting workbooks to meet her needs.

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3. Schaaf, W. L. Mathematics for Junior High School Teachers. Johnson Publishing Company, Richmond, 1931
4. Upton, Clifford B. Studies in the Teaching of Arithmetic. Bureau of Publications, Teachers College, Columbia University, New York, 1927
5. National Council of Teachers of Mathematics. Third Yearbook, Bureau of Publications, Teachers College, Columbia University, New York, 1928

COURSE OF STUDY IN HEALTH, PHYSICAL EDUCATION, AND RECREATION

General Suggestions

I. Introductory Statement

A. Legal Provisions for Instruction in Health, Physical Education and Recreation in the Elementary and Secondary Schools of the State (Chapter 49, Laws of 1941)

1. Establishment

That on and after September, 1941, instruction in health, physical education and recreation shall be established and made a part of the course of instruction and training in the public elementary schools and secondary schools of the state, provided, however, that no further special qualifications shall be required of persons teaching in the public elementary and secondary schools of the state until required by the State Board of Education

2. Courses of instruction

The State Superintendent of Public Instruction shall prepare courses on instruction for the public elementary and secondary schools of the state; and, to provide necessary and adequate supervision for the purpose of carrying out this act, shall appoint a supervisor with a major in physical education from an accredited four (4) year institution

B. Emphasis in Classroom Teaching

In this course of study the emphasis, in the suggestions for methods of classroom teaching, is on the recognition of health values in unit activities; while the materials developed for health instruction are incorporated in the units appearing coincidentally with this volume

C. Subject Matter

The subject matter to be taught, with reference to public and personal health, is embodied in the basal and supplementary textbooks. The physical activities are for the most part given herein in specific detail, in order to save time and expense to the teacher, since the source materials in this field are bulky and expensive.

II. Objectives

A. The objective of health education in the schools is the improvement of the health of the pupils

B. The goal for each pupil is the highest possible level of health which heredity and previous personal history leave possible of attainment

III. Scope of the School Health Program

The scope includes the twenty-four-hour experience of the school child in his total environment of (1) home, (2) school, (3) community. It is recognized that while the Course of Study in Health, Physical Education, and Recreation is concerned with the child's physical well-being, it is impossible to think of physical, mental, or emotional health except as parts of a unit experience. Whatever contributes to one phase raises the level of all.

IV. Time Allotment

The minimum of 210 minutes a week can be divided as follows:

- A. 10 minutes (daily)—morning health inspection (individualizing period)
- B. 15-20 minutes (daily)—health instruction
- C. 15 minutes (daily) (in addition to intermissions)—physical education

V. Personnel

The carrying out of the school health program involves all members of the teaching and administrative staff of schools and health departments

- A. The superintendents, county or city, are responsible for the planning and administration of the whole program
- B. The principals are responsible, within their own buildings, for the carrying out of the entire program
- C. The teacher is responsible for the program within her own classroom; if she teaches a one-room rural school, she is responsible for the whole program
- D. The public health nurse acts as the connecting link between the school and the home. She includes the school child in her program of "generalized" service to the family unit. Details of her work are given here whenever they are involved in the plan of the school health program as summarized in the following pages.
- E. The county health officer is required by law to inspect all school premises once a year. He reports adverse conditions to the school authorities and has authority to enforce his recommendations in case of actual health or safety hazards.
- F. The county physician gives medical service to those unable to pay, on referral by the County Welfare Supervisor
- G. Local dentists do emergency dental work (chiefly extraction) for those unable to pay, on referral by the County Welfare Supervisor

H. Local physicians and public health officers and nurses cooperate variously in many communities in the development and carrying on of programs such as (1) Tuberculosis Control, (2) Crippled Children's Clinics, (3) Well-Child Conferences (or "Preschool Roundups") and (4) Immunization Clinics. Particulars, which space allowance does not permit can be obtained from the public health nurse, the county health officer, the county welfare agent or by writing direct to the Montana State Board of Health, Helena.

VI. Summary of Classroom Procedures in Carrying Out the Health Day Program As It Is Outlined on Pages 340 to 344

For convenience, these procedures are listed here and grouped as to whether they are carried out every day, once a year, or occasionally. These details are equally essential to rural and to highly organized schools. It is in the ways and means of achieving them that school situations differ so widely. A suggested classroom program, simplified to essentials which can be carried out in any type of classroom, is inserted here, so that the details of the Health Day Program will not seem confusing.

A. Daily Procedures

1. Before school

- a. Adjustment of physical conditions: heat, ventilation, light, cleanliness. Report to proper person of conditions that teachers cannot adjust.*
- b. Noting, as child enters, any indication of illness, and taking steps to get him under care of the home

2. Forenoon

- a. Morning health inspection with reference to points under Sections I and II of the Health Day Appraisal, Health Conditions and Health Behavior, page 341
 - (1) Adverse health conditions or signs of illness noted, and pupils referred to nurse. Where there is no nurse, the teacher or principal determines whether the child is to be sent home and makes arrangements.
 - (2) Signs of health progress noted
 - (3) Health practice since preceding day reviewed informally
 - (4) Memoranda made of any significant items noted during the inspection period

Morning health inspection should be informal and casual. Attention never should be called to any pupil's shortcomings before the other pupils. Never make use of artificial devices such as stars, flags, lists of names on the blackboard, contests, or competition, as incentives to health practices.

*This differs in different schools; it may be the janitor, the building principal, the school director or the County Superintendent

- b. The direct health instruction period may be at any convenient time during the day. It must be a specific health period of definite length. If it is more convenient, the instruction period may be combined with the morning health inspection or it may be given a longer time on alternate days, a minimum time per week of 210 minutes being provided.
- c. Physical education instruction period. This may be devoted to brief relief exercises during the day, to posture training, to instruction in bodily techniques or skills, or to the principles of organized games and sports.
- d. Recess provides time for (1) regular habits of drinking and toilet, (2) brief, active all-out group games on playground. When weather does not permit an all-out-door recess, the entire period should be devoted to active indoor play.
- e. Midsession milk should be served before recess or during a lengthened recess period. Until steady monthly gain is established, both morning and afternoon milk is advisable.

3. Noon

Pupils who remain at school during the noon hour, should devote the time to

- a. A leisurely, happy eating of lunch (some provision for an appetizing hot dish or drink can easily be made)
- b. Active playground games (frequently participated in by the teacher)

The noon period should never be shortened, since the sun's rays are then most direct. In the winter, at this latitude, the noon sunshine is practically all that the pupil is exposed to.

4. Afternoon

Indirect instruction, by reference to health values in other subjects and observance of health values in all of the day's activities, should extend throughout the school day—morning and afternoon

5. Dismissal

In winter, a comfortable temperature must be maintained until the pupils have left the building. In rural schools, when the teacher is her own janitor, sweeping must be done after school is dismissed, and a sweeping compound used.

B. Annual (Things done once a year)

1. At the beginning of school
 - a. Make plans for the year's program. Check every item of the Health Day Appraisal Form as to whether:
 - (1) Already provided for or presenting no obstacles
 - (2) Planned for or ordered but not yet done or received
 - (3) Not provided or ordered, but easily within the resources of the school
 - (4) Desirable items that are to be worked for or improved throughout the year
 - b. Fill out a brief summary of the Health Day Appraisal form (pages 341-344) and mail or hand to the appropriate person—superintendent or principal, a school trustee, or the public health nurse
 - c. Get underway all items of the year's health program. The taking of one day—Health Day—to get all these items in place and started is authorized by the State Superintendent of Public Instruction.
 - d. Check new entrants as to:
 - (1) Birth registration
 - (2) Fitness for school, as determined by some type of preschool examination by a physician and a dentist
 - e. Send home Dental Referral Cards (these are supplied on request by the State Board of Health)
 - f. Send home a health record for home checking for one or two weeks (copies will be sent on request by the State Board of Health)

C. At close of school year

1. Inventory and requisition made so that all supplies and equipment may be ordered and repairs planned for during the summer
2. Conferences held with parents regarding health problems of pupils, making note on the personal memorandum sheet or Nurse-Teacher Worksheet of conditions affecting the pupil's health progress
3. Pupils weighed and measured, and report sent to the home of the weight and height and of the gain since last weighing (directions on the classroom wall chart supplied free by the State Board of Health should be followed)

VII. Health Day

One day is set aside at the beginning of the school year for the purpose of inaugurating all features of the year's health program at once, so that they may constitute a working whole. The omission of any essential feature of the health program prevents

the effective functioning of the others. If all are in place at once, the whole program works easily and smoothly.

The complete form for the Health Day procedure is printed here so that the teacher and school administrator can use it year after year in checking the present program and progress in improvement

The program is planned so as to include all essentials and no nonessentials. The completeness of detail should simplify the picture by giving, in condensed form, the whole picture of the health function of the school. Copy of the outline which follows and the Foreword by the State Superintendent of Public Instruction, were sent in 1941 to all County Superintendents for each rural teacher, and they have been furnished to organized school districts at the request of superintendents or principals.

The observance of Health Day will result in the saving of much time during the school year, and will contribute largely to the effectiveness of the year's work.

The form is inserted here, in its entirety, followed by some explanatory notes

HEALTH DAY

Purpose and Procedure

In order to provide time to get the many phases of health in the school program planned and started, teachers are hereby authorized to devote one day during the first month of the school year to this specific purpose.

The reason for setting aside one definite day is that health is not merely one subject on the program of instruction, but it is a quality of the whole experience of the child, any phase of which, if omitted, may prevent the child from benefiting by all the rest.

Where there is a Public Health Nurse, it will take her, usually, more than one month to reach every school. Teachers will, therefore, proceed as early as possible with the Health Day Program as provided for in this check list, and go over it with the nurse on her first visit. Meanwhile, the nurse will judge from the summary mailed to her as to whether an emergency visit is indicated.

After such parts of this Health Day procedure as require the presence of the pupils are carried out, the teacher may, if she thinks best, dismiss the pupils and proceed with the making of plans and the setting in motion of measures for improvement.

If, in the latter connection, it becomes necessary for the teacher to leave the school premises, i. e., to call on a trustee or to telephone to the County Superintendent or to the County Health Officer, or the County Welfare Office, she is hereby authorized to do so.

Many conditions on this first Health Day will be found contrary to the standard assumed in this check list. The teacher should not be discouraged because of this, but should notify her immediate superiors by means of the summarizing forms enclosed and proceed quietly to secure improvement during the course of the year. The second Health Day should show an encouraging change for the better.

Signature

ELIZABETH IRELAND

State Superintendent of Public Instruction

HEALTH DAY**Teacher's Check List of Essential Features of the School Health Program**

Prepared by the Health Education Service of the Montana State Board of Health
Authorized and Issued by the Montana State Superintendent of Public Instruction

This check list is to be kept on hand and a summary mailed at once to the
County Superintendent (or given to the Principal) and, if rural, a copy of the
summary mailed also to the Chairman of the Board of School Trustees and Public
Health Nurse.

Name of School.....District Number.....
Teacher.....Number of Pupils.....

HEALTH DAY APPRAISAL**I.—Health Condition of Pupils****A. Indications of Illness:**

Look over each pupil immediately on the assembling of school on
the first and every succeeding day of the year for indications of
possible illness.

(1) Fever..... (2) Any eruption or rash..... (3) Discharge,
especially of nose or ears or eyes..... (4) Any pain or illness or
injury..... (5) Unnatural lack of energy.....

If any of these conditions is present, send the child home and
make written note of condition. If delay in getting the pupil taken
home is unavoidable, make him as comfortable as possible and
keep him out of contact with others. Where there is a Public Health
Nurse, she should be notified at once.

Total Excluded

B. Health Progress:

Compare present condition of each pupil with the spring record
and make note on the nurse-teacher worksheet of change for bet-
ter or for worse. If there is no record and no Public Health Nurse's
Service, make note of obvious conditions and information obtained
from the pupils on an informal working memorandum—one page
for each pupil.

1. Number of specific corrections or treatment completed or under-
way during summer:

Eyes..... Ears..... Nose and Throat..... Dental.....
Orthopedic..... Other.....

Total Corrections

2. Illness during the summer.

Number of Pupils

3. Number failing to make growth in weight and height.....

C. Vision:

If there is no Public Health Nursing Service, test vision by Snel-
len Eye Chart.

Number of pupils having vision less than 20/30.....

Number of pupils having evidence of other vision defects: e. g.
cross-eyes

D. Weigh and measure and record gain or loss over the summer.**II.—Health Behavior of Pupils****A. Talk with each pupil and note on the nurse-teacher worksheet (or on
a temporary memorandum if this worksheet has not yet been
started) the progress or need of improvement of each pupil in ob-
servance of the essentials of healthful living as given on the
Home Health Record: (Number unsatisfactory)**

Food..... Sleep and rest..... Outdoor play.....

Cleanliness.....

Total

**B. Send home by the pupil a health record for home checking for one
week of observance of these essentials.**

1. After these are returned, the pupils may profitably use the pu-
pil's record for occasional help in habit formation. *(1).

C. Send home Dental Referral Card.

Number Sent

**D. Write notes, telephone or send messages to homes as indicated in
individual cases.**

Number of Homes thus Contacted

E. If emergency, report immediately to the Public Health Nurse.**III.—Health Instruction**

Check each item as planned for

A. Direct Instruction:

1. Time allotment made on daily programs: 15 to 25 minutes
daily, according to grade, for specific health teaching (in addi-
tion to morning health inspection).....

B. Indirect Instruction:

1. Recognition and emphasis of health values in other subjects and
activities regularly planned for.....

*(1) Copies of both of these can be obtained from the Health Education
Service of the State Board of Health, Helena

C. Morning Health Inspection:

A regular period from 10 to 15 minutes devoted to observation and discussion of the pupil's success in applying the health instruction received

D. Pupils weighed and measured and classroom growth record made out and report of weight and height and the summer's gain sent at once to the home.....

IV.—Health in School Living

Check each item as arranged for

A. The daily program planned to be health-permitting in the entire elimination of strain or fatigue or discouragement.....

B. Noon hour (if rural) and two long recess periods provided for on daily program and never shortened.....

C. Teacher's programs include active participation in noon or recess play activity

D. Arrangement made for noon lunch or mid-session milk or both to begin at once

E. Routine handwashing before lunch

Pleasant leisurely time for eating lunch planned for.....

F. Pupils with defective vision or hearing appropriately seated.....

V.—Condition of Plant

	SATIS- FACTORY	UNSATIS- FACTORY (SHOULD BE REM- EDIED NOW)	UNSATIS- FACTORY (SHOULD BE REM- EDIED BY NEXT YEAR)
A. Grounds			
1. Playgrounds			
A. Playgrounds free from rubbish and stones			
B. Surfaced with gravel for all-weather use			
C. Large enough for several games to be in progress at one time (at least one acre in rural schools)			
D. Fenced on highway or street side.....			
E. Play apparatus tested and put in perfect condition			
2. All construction in repair			
A. Roof and foundation			
B. Walks			
C. Fences (not barbed)			
D. Platforms			
E. Steps, stairs, fire escapes.....			
F. Fuel sheds			
G. Scraper and mat			
3. Toilets			
A. Clean and in repair.....			
B. Free from odor			
C. Screened			
D. Well-ventilated			
E. Well-lighted			
F. Latch from both inside and out.....			
G. Urinals—one for each 50 boys.....			
Stools—one for each 50 boys.....			
Stools—one for each 20 girls.....			
4. Water			
A. "Live" water on premises where possible			
B. Otherwise adequately provided for.....			
C. If drinking fountains, clean and in repair			
of type that prevents lips touching nozzle			
D. If pump, in good repair.....			
E. If hauled, storage facilities sanitary.....			
at least one gallon per pupil per day.....			
F. Responsibility for hauling assumed by district, not by teacher			
B. Building, Interior			
1. General conditions			
A. Clean throughout			
B. Scrubbed, halls and classrooms			
C. Painted or refinished			
D. Repaired			
2. Equipment			
A. Seats of proper sizes for pupils occupying them			
and of type that permits good posture....			

B. Illumination

Light at desks sufficient for easy reading (about 10 to 20 foot-candles) ^{*}(1).....
 No shadows on work at any desk.....
 No glare.....
 No cross-lights.....
 Window shades whole and in working order.....
 Window shades hung from middle.....
 Halls, basements, and toilets well light ed.....

	SATIS- FACTORY	UNSATIS- FACTORY (SHOULD BE REM- EDIED NOW)	UNSATIS- FACTORY (SHOULD BE REM- EDIED BY NEXT YEAR)
3. Ventilation			
A. All windows easily lowered from the top.....			
B. Window boards in windows to deflect air currents.....			
C. Halls, basements, and toilets well-ventilated.....			
4. Heat			
A. If stove, far enough from pupils and jacketed so heat is evenly distributed....			
B. Thermometer hung at about 5 feet from floor; at least one movable.....			
5. Supplies			
A. Handwashing			
(1) If running water, wash bowls sufficient in number for the pupils at recess at one time.....			
and located near toilets.....			
(2) If not running water, several wash-basins.....			
(3) A plan for pouring, in use, if economy of water is necessary.....			
(4) Soap and paper toweling on hand.....			
(5) Waste water container.....			
B. Mirrors on level of pupils' heads.....			
C. Toilet paper, adequate in amount, one pad at every stool.....			
D. Drinking Water			
If fountain, clean and in working order....			
If container, clean with tight cover and spigot, individual cups.....			
E. Lunch Facilities			
Glasses or cups for drinking milk.....			
Large pan for heating jars of food.....			
Vessel for making cocoa or soup.....			
F. Equipment adequate in amount and kind, for sweeping, dusting, scouring, cleaning erasers, washing blackboards			
G. First aid supplies include at least			
Scissors, 1 Clinical Thermometer, Gauze Bandages (1-inch and 2-inch rolls), Adhesive Tape, Absorbent Cotton, Iodine (3%) or Merthiolate, Rubbing Alcohol, 1% Picric Acid for burns, 1 bottle Green Soap, Applicators, Tongue Depressors, Tweezers.....			
H. A fire extinguisher of type and size that pupils can use.....			
I. At least one canvas cot and small pillow.....			
J. Basal textbook for each grade in hands of pupils.....			

^{*}(1) If there is any question as to the adequacy, a foot-candle meter can be borrowed from the nearest office of the Montana Power Company or from the Lending Library Service of the State Board of Health.

K. Supplementary Literature

- (1) At least two other textbooks suited to each grade in room
- (2) One recent reference book for the teacher's use
- (3) One standard book of playground activities suited to grade.....
- (4) Lending material for enrichment of teaching from the State Department of Public Instruction and the State Board of Health
- (5) Pamphlets from the Metropolitan Life Insurance Company
- (6) Bulletin No. 43, Montana State Board of Health

VI.

A copy of the enclosed summary of this Health Day Appraisal sent to your County Superintendent (or given to your Principal) and to the Chairman of the Board of Trustees, and to the Public Health Nurse.

The check list follows the requirements or authorization of the State Department of Public Instruction and the State Board of Health. They are already for the most part set down in one or another of the following official publications:

1. School Laws of the State of Montana
2. Public Health Laws of the State of Montana and Regulations of the State Board of Health
3. Control of Communicable Diseases Among School Children, Special Bulletin No. 43, Montana State Board of Health
4. Montana Rural School Standards, Montana Department of Public Instruction
5. Official Score Card for Graded Elementary Schools, Montana Department of Public Instruction
6. Montana State Course of Study, Montana Department of Public Instruction

The items included in this Health Day Check List are selected from the above sources for the convenience of the teacher and for economy of time in getting essentials, which most immediately affect the health of teacher and pupil, underway without loss of time

Every school should have a copy of each of the six publications listed above

VIII. Health Instruction

A. Health appears in the curriculum in two aspects, and failure to differentiate between the two is responsible for much of the difficulty experienced in planning the school health program. Health is, first, an organized science, the application of whose principles results in, second, the quality of living which we commonly call health.

1. Health as a science

Health (or hygiene), as a scientific body of subject matter, deals with the essentials of proper bodily functioning. This in almost all elementary schools of the State is treated as a separate subject, assigned along with other "fundamentals" to a specific period in the classroom.

2. Health as a quality of living

The second aspect of health instruction is developed in the series of units which appears coincidentally with this course of study. Here the health information of the textbook is brought to life in its relation to the unit experience of the classroom, focused in one or another phase of the development of our way of social living.

B. Good health teaching does not depend upon the use of any one method. The textbooks supply sound facts, and the units suggest the place of health in integrated classroom experience. The health supervision procedures (see Health Day Check List) enable the teacher to adapt instruction to individual needs. Professional health service does for the child what he cannot do for himself.

1. Textbooks*

The series of textbooks in use prescribe the content and grade sequence in subject matter. These are:

- a. Road to Safety Series. Buckley, White, Adams and Silvernale. American Book Company, Chicago.
- b. Healthy Growth Series. Charters, Smiley, Strang. The MacMillan Company, Chicago.
- c. Health, Happiness, and Success Series. Burkhard, Chambers, Maroney. Lyons & Carnahan Co., Chicago.
- d. Health Life Series. Fowlses, Jackson and Jackson. The John C. Winston Co., Chicago.
- e. Health Stories for Grades 1 & 2. Towse, Matthews and Gray. Scott Foresman & Co., Chicago.

These textbook series, if used together as basal and supplementary material, give the teacher a well-balanced fund of source material

It is important that each series be used as a whole. The splitting of the series would result in a disbalance of emphasis, with the omission of some topics and the repetition of others. Every teacher, therefore, should be supplied with all of the books of the series which she uses as basal.

It is not the use of the textbook that is inconsistent with modern education, but the way in which it is used. No text should be followed slavishly, on a page-assignment basis. The modern textbook is built on the subject-matter unit plan and is difficult to use in any other type of instruction.

2. Enrichment material

a. Scientific background

No teacher can teach effectively or with any enjoyment if her foundation is not deeper than that of her pupils. Every school should make conveniently available to each teacher at least two or three health textbooks on college level. Three good ones are:

- (1) Hygiene, a recently revised edition (1941) by Dr. Florence Meredith, the textbook used in the Montana teachers' training colleges. The Blakiston Co., Philadelphia, \$3.50.
- (2) Personal and Public Health. By Dr. C. E. Turner (1940). The C. V. Mosby Company, St. Louis, Missouri, \$3.50.
- (3) Personal Hygiene Applied. By Jesse Williams (1940). W. B. Saunders Company, Philadelphia, \$2.50.

b. Current magazines and pamphlets are generally available and the health content of the standard periodicals is reliable and untechnical. Every school should take *Hygia*, American Medical Association, \$2.50.

c. National and State publications, which are reliable and either free or of low cost

d. The State Board of Health has a lending library, which contains books, pamphlets, posters, and films which may be borrowed free of cost

e. "Health in Education" leaflets issued from time to time by the State Board of Health, Helena

f. Films and other illustrative materials supplied by the Department of Public Instruction

3. Grade sequence of health instruction

a. Grades One and Two

Informal inclusion of health among the interests of the classroom experience. The health behavior essentials should be taught as a unit procedure, as early as possible in the order of daily observance, and reviewed

in the same sequence. Frequent and varied representations in play activities of this behavior sequence, if they involve always the same nerve-muscle mechanism as does the actual performance, will greatly facilitate habit formation. By the time the child leaves the second grade, the health performance routine should be automatic, at least to the extent that every infraction is a conscious one. The health information in the first and second grades will consist of:

- (1) The **whats** of essential health behavior: e. g., long hours of sleep
- (2) The **hows** when really essential: e. g., sleep in fresh air
- (3) A few very general **whys**: e. g., sleep helps us grow
The reasons taught at each grade level are developed or added to in the next.

b. Grades Three to Six

Direct instruction in the regular health period, from basal and supplementary texts; indirect instruction through references to health values inherent in other subjects, and in aspects of classroom living

In these grades the same essentials of personal health are covered each year, but they are spiraled year by year with the widening of the pupil's intellectual and social horizons. By the end of the sixth year, pupils should be established in personal health habits, with such reasons for them as they are able to understand.

c. Grades Seven and Eight (Junior High School)

(1) Direct Instruction

(a) Science

Through the new technique of experiment, the pupil learns respect for the relationship between cause and effect and gains power to govern his own behavior from reasoned premises

(b) Social Science

From the new perspective of the social subjects, the pupil sees health in its bearing on the development and achievement of races, nations, communities, and back to individuals. Public health is an integral part of social science at this level. By the time the pupil has finished the eighth grade he should be equipped for intelligent public health citizenship, whether he leaves school at this level or goes on to high school.

- (c) Home Economics gives another experimental approach to personal and public health problems as related to home living
- (d) Physical Education affords, through physical fitness, a new and powerful motivation for personal health, and an introduction to public health through problems in community recreation

(2) Indirect instruction

It health teaching has been well done in these four subjects of specific health content, it will carry over into all the other subjects and all phases of school living. The junior high school idea of a wide and varied sampling of experiences carries great responsibility for the school staff, since health is the highest quality of all experience and should be consciously recognized as such by the youth in this stage of experimental living.

(3) Individualization of instruction

The one indispensable feature of good health teaching is the individualization of instruction as applied to daily living

This phase of classroom instruction consists of the morning health inspection and the other individualizing procedures listed in the Health Day Check List

(a) The Nurse-Teacher Work Sheet

To facilitate the work of both nurse and teacher in the removal of specific handicaps and in the establishment of conditions favorable to positive health, a Nurse-Teacher Work Sheet is supplied by the State Board of Health. Where there is no nurse, the teacher herself can use it informally, just to help her remember the things that must be kept in mind about each individual child.

(b) The Cumulative Record

At the end of the year the net results are recorded briefly on the Cumulative Health Record for permanent reference, and the work sheet destroyed. Where there is no nurse, copies of the Cumulative Health Record Form, as well as the Nurse-Teacher Work Sheet, may be had, free, from the State Board of Health.

(c) The Health Day Check List

This list has been issued by the State Superintendent's office to help teachers keep the great number of details of a school health program in mind. A Health Day is authorized, in order to give time to get all these details planned for and under way. The Health Day Check List is not a report to be filled out and sent in to someone; it is a convenience to be used by the teacher and school administrator in whatever way is most helpful. The items on the list are all essential to a functioning health program, and as such the school is responsible for them.

The first and second sections (dealing with the health condition and health behavior of pupils), have to do with the continuous supervision of the individual child. Here is where teamwork of teachers and the Public Health Nurse is most vital. To render this cooperation effective and to utilize to the utmost the over-crowded time of the Public Health Nurse, some kind of continuous informal memorandum, as suggested in the Health Day Check List, is necessary for the teacher's understanding of the child, and as a fund of information on which the nurse can draw.

IX. Health Condition of Pupils

The objective of school health education being healthier children, the teacher will wish to judge the child as accurately as possible, both as to general condition and the most obvious specific departures from health

A. General health condition

The teacher's first step will be to compare each child with accepted standards and to determine for each child his present status with reference to these standards, in order to gauge his progress toward his highest health possibilities. This is by no means difficult. A child in prime condition is unmistakable: there is an abundance of life, a glow of well-being that defies analysis. Certain specific characteristics are generally agreed upon as useful criteria of the health condition of a child. The following comparison between the well child and the one who is not well has long been quoted as a classic in simplified scientific statement:*

*From "Health Diagnosis" by Dr. Wm. R. P. Emerson. The MacMillan & Company San Francisco

Signs of Physical Fitness

Glow of health—eyes clear
color good
Expression of face, happiness and well-being
Hair, smooth and lustrous
Mouth closed in breathing
Teeth good; gums healthy
Skin clear, firm
Muscles, good tone; flesh firm
Posture, erect, suggests power and endurance
Gait, alert, full of life
Feet, good arches
Steady growth
Outdoor-minded
Normal reaction, good physical and mental stability
Enjoys life, fond of play
Picture of health, looks young and vigorous

Signs of Physical Unfitness

Lack of glow of health—eyes dull and color poor
Expression of face, drawn or apathetic, lines under eyes
Hair, rough and dry
Mouth open in breathing
Teeth or gums defective
Skin not clear, loose
Muscles soft, flesh flabby
Fatigue posture, suggests debility and weakness
Gait slow, dragging
Feet, pronated (or flat)
Obese or thin
Indoor-minded
Reactions exaggerated or subnormal, physical and mental instability
Discontented, hard to interest
Appearance unhealthy, looks old, lacks vitality

B. Signs of illness

1. The following symptoms of possible illness are listed in section 1-A of the Health Day Check List:

- a. Fever
- b. Any eruption or rash
- c. Any discharges, especially of nose, eyes, or ears
- d. Inflamed or swollen eyes
- e. Any pain or sickness or injury
- f. Unnatural lack of energy

If symptoms are noted promptly, and the child is placed under professional attention promptly, the development of disease will frequently be prevented, or its course greatly mitigated.

Any teacher soon acquires the habit of noting signs of illness, automatically, as a child enters the room. Without waiting for school to open she gets him out of circulation promptly. Five minutes contact with the other pupils may expose all the pupils to contagion and start an epidemic which might easily have been prevented.

Every teacher should learn to use a clinical thermometer, and every school should own one. Clear directions are given in the pamphlet, "What Every Teacher Should Know About The Physical Condition of Her Pupils," by Dr. J. F.

Rogers, Office of Education, Washington, D. C., price five cents.

The teacher should never assume the responsibility of deciding whether the child is "really sick" or "sick enough to send home." If any of the symptoms enumerated above are observed, the teacher should refer the child to the nurse. If there is delay in getting the child home, he is made as comfortable as possible, out of contact with other children, on a cot in the back of the room if there is no separate room available.

2. First aid and emergency service

No teacher should assume the risk of teaching without standard first-aid equipment as listed in the Check List, nor should the teacher risk ignorance of the use of this equipment. The Red Cross First Aid Textbook should be owned by every school and should be carefully read by every teacher.

3. Communicable diseases

The State Health Laws and Regulations and the State School Laws require that instruction regarding communicable diseases be given by the teacher "in every grade." Obviously, the nature of the instruction in the early grades must be left to the teacher's judgment.

A bulletin of information (Bulletin No. 43, Control of Communicable Diseases among Children, of the Montana State Board of Health) is provided for the teacher's information, and a Wall Chart of Communicable Diseases is provided for the classroom. Both are sent free on request.

Exclusion from school for contagious diseases is legally required by both State School Laws and State Health Laws. This includes colds at the communicable stage: that is, with coughing, sneezing, or discharging nose.

Where there is no nurse, the teacher must use her own judgment as to the presence of the symptoms of illness, and if there is any doubt, give the child the benefit of the doubt, and get the responsibility into the home, even though criticism from the home results.

Exclusion of the teacher is just as important as exclusion of the pupil. The teacher should feel bound to exclude herself—i. e., report sick—if she has a cold at the contagious stage.

The pamphlet, Control of Communicable Diseases, (1941) published by the American Public Health Association, New York City, for 25 cents should be in the school

C. The correctible defects of school children which the teacher can most easily detect are those of eye, ear, nose, throat, teeth, nutrition, and posture

1. Eyes

- a. The presence of any of the following behavior symptoms* in pupils should suggest eye trouble to the teacher. She does not, however, make any recommendation to pupil or parent beyond that of an examination by a physician.

Attempts to brush away blur
Blinks continually when reading
Cries frequently
Has frequent fits of temper
Holds the book away from face when reading
Holds the book close to eyes when reading, or keeps face close to the page
Holds body tense when looking at distant objects
Is inattentive during wall chart, map, or blackboard lesson
Is inattentive during class discussion of field trip or visit to the museum
Is inattentive during reading lesson
Is irritable over work
Reads when he should be at play
Rubs eyes frequently
Screws up face when reading
Shuts or covers one eye when reading
Screws up face when looking at distant objects
Thrusts head forward in an effort to see distant objects
Tilts head to one side when reading

- b. Certain defective eye conditions are directly observable; crusts on lids among lashes; red eyelids; styes; swollen eyelids; and watery eyes. Eyes should be suspected also when the child reports headache, dizziness, or nausea. Whether the child has normally acute vision is best determined by the use of the Snellen Chart. If the school has no nurse, the teacher, who will read the directions carefully and follow them exactly, can give the test.

A copy of the chart, with directions for using it, will be sent free on application to the State Board of Health

*From "Conserving the Sight of Children," Joint Committee on Health Problem in Education, N. E. A. & A. M. A.

c. The teacher's responsibility with respect to pupils with eye-defect is to use her influence to get them under the care of a physician, to insure classroom conditions favorable to eye health. The following five essentials should be insured:

- (1) A minimum of ten foot-candles of light, (best, about fifteen) artificial or daylight, on all working surfaces
- (2) The absence of objectionable shadows on working surfaces
- (3) The absence of direct or reflected glare
- (4) An arrangement of working positions of teacher and pupil so that light does not enter the eye
- (5) Adapting the seating of each child and his classroom program to the limitations imposed by the eye condition

2. Ears

a. Common indications of possible impairment of hearing are:

- (1) "Ear trouble"—frequently called attention to by the child's coming to school with cotton in his ears, or complaining of earache
- (2) Apparent inattention, shyness, or sullenness
- (3) Unnaturally low, or unnaturally loud, or unmodulated voice
- (4) Unnatural position of the head, tilted to favor the better ear
- (5) Unnaturally concentrated look of attention
- (6) Seclusiveness, shyness, suspicion

b. The teacher's duty in regard to the child with indications of impaired hearing is twofold:

- (1) To use her influence persistently to get the child under the care of a physician
- (2) To adapt the classroom conditions and her instruction to the child's needs, as far as possible. Since the eye must take on an added responsibility, the problem of classroom illumination takes on added importance. The pupil should be seated where he can best watch the teacher's lips, and should continue to take part in the regular work of the group. The teacher should take pains to speak clearly, but should resist the tendency to exaggerate the lip movement.

3. Nose and throat

Any of the following symptoms should be called to the attention of the nurse (where there is no nurse, a note should be sent to the home calling the attention of the parents to the child's condition and urging a physician's attention)

- a. Sore throat
- b. Diseased or obviously enlarged and inflamed tonsils or adenoids
- c. Discharging ("runny") nose
- d. Habitual mouth breathing

4. Teeth

Since the examination of children's teeth is a very technical matter, and since almost every child does show some dental defect, the aim of the teacher should be, first, to get every child to his own dentist for a regular semi-annual check-up, and second, to encourage proper habits of dental hygiene

Dental Referral Cards, supplied to schools free, on request, by the State Board of Health, are proving very effective reminders to the home of the necessity of regular dental attention

X. Health Behavior

The actual essentials of daily health observances are simple, generally agreed upon, and attainable by most school children. It is only with respect to health practices, which are socially desirable but that are not really necessary to health, that differences of opinion arise. A daily health program reduced to its lowest terms, such as the following, should be within the reach of any child. (If in any case it is not, the first concern of the teacher is to discover the obstacles to essential health practice and to set in motion measures for their removal.)

SATISFACTORY HEALTH HABITS

Sleep

Children should go to bed at a regular, early hour, and should sleep until they awaken naturally. This usually will give from 9 to 12 hours of sleep, according to age. The youngest pupils and the early adolescents need the most sleep.

Exercise

Four hours of big-muscle activity, daily, is the approximate minimum set by physical education authorities. At least two hours of this should be recreational in character—out-of-doors when weather permits.

Food

Every child should have the "protective" foods every day

1. One quart of milk
2. Fruit or green vegetables, or both, sometimes raw
3. An egg every day or two
4. Cod liver oil—one teaspoonful daily (or the equivalent in Vitamin A and D concentrate) at least until ten years of age
5. Some whole-grain cereal or bread

In addition to these "protective" foods there should be enough of other foods to satisfy the appetite and supply energy

The less money there is to spend for food, the greater the proportion which should go for whole milk and cereals

Cleanliness

The essentials of personal hygiene include

1. Washing hands before each meal and after visiting the toilet
2. Cleaning teeth morning and night
3. Bathing at least twice a week
4. Drinking plenty of water

Elimination

A regular toilet time, in addition to the simple essentials of healthful living, will usually keep elimination regular

XI. The Work of the Public Health Nurse

In order to plan the most effective cooperation possible with the public health nurse, it is well that the teacher know something of the whole program of the nurse in whose district the school is located

The nurse's service is "generalized"—i. e., she gives all types of service to the people of her district, on the family-unit basis. In many cases, the school affords a most effective point of departure into the homes—i. e., the pupils selected by the teacher as most needing the nurse's attention come from homes most in need of the nurse's help. In other cases, the nurse may serve the school quite as effectively with more infrequent appearances in the classroom and more frequent visits to the home.

The scope of the work of the public health nurse may be summarized as follows:

- A. Public health nursing service to mothers, through the whole maternity cycle, including assistance to physicians in home deliveries
- B. Infant and preschool service, through instruction and demonstrations on the daily care of the child and through helping to organize and conduct well-child conferences
- C. Assisting the local health officer in the control of communicable diseases: by reporting suspected cases and investigating contacts; by educating families to recognize symptoms, to appreciate the importance of isolation or other prescribed measures of preventing spread of the disease, and to care for the patient at home; by giving of bedside care herself when need is indicated, as well as in organizing immunization clinics for diphtheria and smallpox
- D. The Nurse-Teacher Work Sheet, furnished to schools on request, is designed to facilitate and render more effective the cooperation of nurse and teacher. Leaflet No. 3 of the Health in Education Series makes detailed suggestions as to the working relationship of the nurse and teacher in dealing with health problems of the classroom. (Back copies will be furnished on request.)
- E. Service to adults, other than as members of the family group (this is primarily educational in nature); encouraging periodic health examinations; stressing the importance of early diagnosis and treatment; and observing the essentials of personal hygiene; encouraging and coordinating the efforts of adult groups for the betterment of public health conditions—demonstration care during illness.

- F. The specific plans of the nurse's work in the schools are worked out for each situation by the nurse, the county or city health department, and the school personnel. It is most important that the nurse be present at the first teacher's meeting in the autumn to discuss in detail with the teachers the local problems and plans for cooperation.

XII. Bibliography for Health Education

The few pamphlets and books referred to in the text constitute the minimal working equipment which the teacher should own or to which she should have current access. The catalog of the Lending Library of the State Board of Health constitutes a longer bibliography. The teacher may secure this catalog, free of charge, from the Health Education Service of The State Board of Health, Helena.

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PHYSICAL EDUCATION AND RECREATION

General Suggestions

I. Introduction

It is hoped that the material herein provided will make for a comprehensive program which will promote

- A. Desirable habits, knowledge, and attitudes in health
- B. Useful and desirable skills in, and knowledge of, rules and techniques of physical activities (athletics, dancing, etc.)
- C. The normal condition and normal functioning of skeletal and organic parts
- D. Leadership, self-expression, and self-confidence
- E. Desirable habits of social conduct

II. Organization

A. Time allotment

1. Instruction periods

- a. Kindergarten, First and Second Grades—5-15 minutes daily
- b. Third, Fourth, Fifth, Sixth, Seventh, and Eighth Grades—15-20 minutes daily
- c. High School—3 one-hour periods per week, minimum

2. Relief periods

Periods of two or three minutes duration should be used when necessary to relieve fatigue or restlessness, which result from long periods of sitting or study requiring steady attention

3. Supervised play periods

Before and after school, during the noon hour or at recess periods, the teacher should be present, not for instructional purposes, but to guide her group in choosing activities and properly using the equipment

B. Activity selection

1. Should be based on the following criteria

- a. Age or grade of pupils
- b. Interest and ability of pupils
- c. Sex
- d. Season
- e. Space available
- f. Equipment available

Choose activities which make possible a maximum amount of participation. Include three or four different activities in one lesson; or spend several instruction periods on one activity.

2. Kinds of activities

- a. Tests: self-testing activities in which one pupil may try individual tests, an example of which would be chinning oneself ten times (badge tests)
- b. Tournaments: individual and team (contests add to the the interest and value of an activity)
- c. Field meets or play days: these may be so organized as to involve the entire community; play days use the idea of mass participation with members from each group playing on every team
- d. Point system: points may be awarded for scholarship, attendance, citizenship, athletic activities, and other school activities; awards may be made for a certain number of points

C. Playground arrangement

Generally speaking, space and equipment to be used by small children should be near the schoolhouse; fields for older boys and girls should run north and south and should be used on a rotating basis by boys and girls

Rural school sites should contain a minimum of three acres of level, well-drained land. Other schools should have a minimum of five acres. This land should be free from stones; shade trees and shrubs should be planted on outer edges of the play fields.

D. Equipment (supervised at all times)

1. Movable

a. Homemade

- (1) Yarn balls and bean bags
- (2) Tumbling mats, converted mattresses
- (3) Table-tennis tables: top of the table should be five feet by nine feet and should be thirty inches from the floor. Plywood laid across a pair of horses will serve; and this type of table can be dismantled at any time. Nets and posts may be obtained from a sporting-goods house.
- (4) Darts and paddles

Darts may be made from halves of a sponge rubber ball or cork with feathers inserted around the edge of the cut surface. The feathers must be reinforced with tape or strings woven at the base of the quills where

they enter the rubber or cork. The paddles are cut from three-ply wood.

(5) Quoits

These may be pieces of rope or old garden hose with the ends taped together to form circles. A six-inch diameter is a good size.

(6) Target toss board

This may be made of a piece of plywood about two feet square or larger. Holes are cut to represent eyes, nose, and mouth, and the board may be further decorated as a face. The mouth is the largest hole and scores only one. The nose is the smallest and scores three. The eyes score two.

b. Purchased from sporting-goods houses

It usually does not pay to attempt to make such things as volleyballs or basketballs, nets, Indian clubs, basketball goals, and baseball bats

2. Permanent

a. Homemade

(1) Standards, to be permanent, should be set in concrete. These are used for swings, strides, tether ball, horizontal bars, etc.

(2) Sandboxes

May be made from 2" by 10" planks

(3) Jungle gym for very small children may be made by putting pieces of broomsticks through two-inch boards at suitable intervals

b. Purchased from sporting goods or school-supply houses

(1) Giant-strides, and many types of swings

(2) Slides

(3) Large jungle gym, horizontal ladders, parallel bars

III. Rhythmical Activities

A. Formations

1. Single circle, face in
facing partner
facing line of direction
2. Double circle, face in
facing partner
facing line of direction
3. Lines
single, facing line of direction
double, facing line of direction
double, partners facing, boys in one line, girls in another,
or couples beside each other
4. Quadrille
four couples, one on each side of the square, boy on the
left of the girl

B. Steps

1. Polka Step: Hop, step, step, step. In teaching beginners it is easier to use step, step, step, hop. Three-four time: hop-step-step-hop. Four four time: hop-step-step-hop. Two-four time: hop-step-step-hop.
2. Heel and Toe Polka Step: Hop on the outside foot, use inside foot forward, heel down, toe up, weight on outside foot; hop on the same foot—inside foot backward, toe down; follow by a regular polka step beginning with the hop on the outside foot. The body is inclined back on the "heel" and forward on the "toe!" Two-four time—Heel and toe—hop-step-step-and—
3. Back to Back and Face to Face Polka: Begin hop on the inside foot and face each other, arms back, take the three steps as step sideward, step together, step sideward. On the next hop, which is taken on the outside foot, make a half turn outward with backs together, arms swing forward. Continue face to face and back to back.
4. Mazurka Step: Step diagonally forward right, step left close to right foot, take the weight left, hop left. Count 1-2-3. A succession of mazurka steps is done, beginning with the same foot each time. Three-four time: step-close-hop.
5. Schottische Step: Step diagonally forward right, step left close to right foot, take the weight left, step right forward, hop right. Left leg may go forward or remain back. A succession of steps begins with alternating feet. Four-four time: step-close-step-hop.
6. Skip: Step and hop right, step and hop left. Continue. This may be slow or fast.
7. Dutch Step: Step right, brush left heel forward, hop right. Count 1-2-3. Also called step swing by using two counts, omitting the hop. Three-four time: step-brush-hop.
8. Waltz Step: Step forward right, slide left sideward taking the weight, close right to left taking the weight right
9. Tap
 - a. A change of weight from one foot to another. A step in any direction.
 - b. Involves no change of weight; is a brush forward and backward with one foot; stand on the left foot, brush forward and back with the right foot, loose ankle. The backward brush is sharper than the forward.
 - c. A 2 plus a 1, in that order. One foot does both. A succession of 3's alternate feet. Hop 3—Hop right, 3 left. Hop comes almost at the same time as the first brush.
 - d. A 3 plus a 1 (always done by the same foot)
 - e. A 1, 3, 1 (may be done in fox-trot or waltz time). A 5 is called a time step in waltz time. Be careful not to emphasize the first count.
 - (1) Tap 5: A tap precedes the first step in the 5
 - (2) Hop 5: A hop precedes the first step in the 5; the hop is slight
 - f. 3, 3, 1: Even time and continuous, be careful not to emphasize the last beat
 - (1) Hop right, 7 left: Hop comes in as in the hop 3. Hop 7.
 - (2) Broken 7: 2 left, hop right, step left, 4 right; the step is usually taken in the rear (this is also called a simple-time step)
 - g. Triple-time step: Broken 7, plus hop left, brush step forward right, step left behind right, step forward right
 - h. Chug: May be done on a single foot or both feet. A slide forward weight on floor; foot must maintain contact (has the sound of sand-paper sliding on the floor)
 - i. Pull-back: Same as the chug, moving **backward**

- j. Spank, Jig, Flop: The beginning brush of the 2, plus weight; it gives two sounds, done with a relaxed ankle
- k. Toe-heel: Take the weight on the ball of the foot; then on the heel without lifting the ball of the foot
- l. Grapevine: Step right in rear of left, step left sideward, step right forward, step left sideward, continue (usually an uneven number, 3, 5, 7, etc.)
- m. 2-Grapevine: Grapevine preceded by a 2, by the foot that takes the step in rear
- n. Buffalo: 2 left, step left in rear of right, with right foot raised in front of the left ankle; brush and step forward right; a succession of buffalo steps moves in one direction sideward and begins each step with the same foot

IV. Posture

A. Description of good posture

- 1. Standing position
 - a. Feet parallel; toes pointing straight ahead
 - b. Weight balanced on balls of feet
 - c. Knees easy
 - d. Abdomen pulled in and at same time the hips pulled down and under
 - e. Chest up; avoid arching back
 - f. Head up and chin in
- 2. Sitting position
 - a. Reading or rest position
 - (1) Head up; chin in
 - (2) Chest up
 - (3) Hips, knees, ankles at right angles
 - (4) Feet flat; toes straight ahead
 - (5) Lower back touches back support
 - (6) Shoulders relaxed
- 3. Walking position

The feet should be parallel, as there is less strain on the arches in this position. When one "toes out" there is a tendency for the ankles to turn in and for the arches to sag. In walking, the foot strikes the floor, heel first, very lightly; the ball of the foot toward the outer border, second; and the toes third. Heel first, then arch, then toe—very quickly so that the contact almost seems to be on the entire surface at the same time.

B. Values of good posture

1. Physiological

The tie-up between physical well-being and good posture seems to be in a circle, in that good health seems to bring good posture and good posture brings consequent good

effects on health. Certainly, good posture offers better opportunity for the efficient functioning of the respiratory, digestive, excretory, and nervous systems.

2. Psychological

Very definitely, posture reflects mental attitude (good posture, no doubt, tends to restore or maintain desirable mental spirit)

3. Physical

Good posture cultivates relaxation, poise, grace, and readiness for action

4. Appearance

Clothes look better; there is an appearance of alertness, self-command, and resourcefulness that commands respect

C. Common postural defects

Head forward; chest flat; shoulders round, back hollow, curvature lateral, abdomen protruding, feet and ankles weak

D. Some causes of poor posture

1. Structural defects

These are the concern of the orthopedic surgeon; the teacher's concern is to see that the child with structural defects receives attention

2. Growth handicaps, such as adenoids, defective vision, and hearing, likewise, are the teacher's concern in that she may be the one to call attention to the defects so that a physician may bring correction

3. School problems of lighting, ventilation, and ill-fitting seats are the teacher's direct responsibility in her classroom; likewise, seeing that the child does not keep one position too long and that he does not habitually maintain poor posture in school are both direct responsibilities of the teacher

4. Poor muscle tone and coordination may be corrected by postural exercises

E. Improvement of posture

1. Posture cues

(Cooperation of parents is indispensable. The best method of posture improvement is the constant maintenance of good postural habits.)

a. Head up; chin in

b. Stand tall; sit tall

c. Abdomen flat

d. Shoulders relaxed

e. Feet forward

- f. See how near the ceiling you can push that place on top of your head where the hair is hard to comb

2. Exercises

a. Bed position

Stand with feet apart, arms forward; raise on toes and fling arms sideward; palms up

b. Long sitting

Sit with back against a wall, legs extended forward and arms overhead; draw arms down slowly, holding body against the wall

c. Hook lying position

Lie on the back, knees at right angles, feet flat on the floor; place hands on shoulders, elbows at the sides; stretch arms diagonally overhead against own resistance; keep small of back touching floor

d. Corner exercise

Stand in a corner with one hand on each wall, elbows shoulder high; swing body forward as far as possible, retracting the abdominal muscle; keep head up and chin in; return to original position; keep head up and chin in

e. Hang from horizontal bar with hands well apart; hold this position; keep head up and chin in

f. Wall exercise

Stand with back to the wall and heels four inches from wall; bend knees and lean against wall so that small of back touches wall; touch wall with upper back, shoulders and head (with chin in); gradually bring feet closer and straighten knees, as long as back waistline can be held firmly against wall; continue slow, deep breathing during exercise

F. Suggested teaching procedure

In the elementary school, the teaching of posture should be a part of the regular classroom work. Correlate the study of posture with English and History by pointing out personalities who were excellent examples of good posture. In foods classes, show relation of good posture to proper nutrition. In art appreciation, show how good posture adds to grace, beauty, and poise.

G. Evidences of pupil growth

1. Grade One

Posture is not discussed with pupils in this grade. The teacher notes any cases that need attention and handles these individually. Care is taken in making sure that all are properly seated, and that the children learn to choose chairs and seats suited to their size. During this year the child:

a. Sits and stands tall

b. Walks with toes pointing straight ahead

c. At school, chooses chair or seat suited to his size

2. Grade Two

Help children to stand well without calling attention to shoulders. Demonstrate the choice of chairs suitable for

children by having different sizes for them to try. Discuss with them the chairs they use at home. During this year the child:

- a. Holds body in ease, erect position when standing
- b. Selects suitable chair when possible and sits in it properly

3. Grade Three

The teacher should help each pupil to get the feeling of good posture as he works. Seats should be adjusted to the size of each pupil. Where seats are not adjustable, footrests should be provided for pupils who cannot touch the floor with the feet. During this year the child:

- a. Keeps good posture while writing and working
- b. Walks without shuffling feet

4. Grade Four

Help pupil to see that standing tall improves his appearance. Secure good pictures of happy children playing or working, and stimulate pupil to note the posture. Stimulate the class to see that boys and girls who are well and strong, who eat wholesome food, and sleep long enough to get rested, usually have good posture. During the year the child:

- a. Knows how to sit, stand, walk, and run correctly
- b. Has good posture when standing, sitting, and walking
- c. Gives attention to light when reading or working on fine materials
- d. Admires good posture in others

5. Grade Five

During the year the child:

- a. Desires to have good posture
- b. Admires good posture in art
- c. Knows that the points in good sitting posture are: hips well back in the chair or seat, feet flat on the floor, and back straight without exaggerated curve either at the waistline or shoulders
- d. Checks his sitting posture, often, by the points above
- e. Knows that the points in good standing posture are: weight forward on both feet, with toes pointing straight ahead; chin in; chest lifted; abdomen flat; back straight, and arms hanging naturally at the sides
- f. Checks standing posture, often, by standing against the wall with heels a few inches from the wall, and with hips back, and head against the flat surface, placing the hand flat between the waistline and the wall and pressing body against it

- g. Changes hands from time to time in carrying heavy books or other heavy objects

6. Grade Six

In this unit there seems to be the best opportunity to include the knowledge related to the muscles and bones, suggested for this grade. The approach might be made by asking pupils, "What posture would be our only concern if we had no bones? How would we be able to move?" From these questions, lead to discussions on the work of the bones and muscles. Let the pupils discover the relation of these to good posture. Discuss other conditions that affect posture and the benefits of good posture. During the year the child:

- a. Knows that good posture aids in the proper functioning of the body, and improves one's personal appearance
- b. Knows that exercise in the fresh air and wholesome food help to build muscles and bones which help to maintain erect posture
- c. Wears clothing that allows freedom of movement and shoes that fit properly
- d. Knows that one's thoughts may affect one's posture (effect of worry, sulkiness, joy)

V. Achievement Standards

One set of tests for boys and girls from ten to eighteen years of age is the Neilson and Cozens achievement test.* Thirty-three tests for boys and twenty for girls are listed.

The National Recreation Association offers the most widely known award for the lower grades. This is a certificate awarded to children who pass certain levels of the National Physical Achievement Standards. The certificates sell for three cents each and may be secured from the National Recreation Association. Certificate levels are as follows:

Primary certificate	ages 8 and 9
Elementary certificate.....	ages 10 and 11
Intermediate certificate	ages 12 and 13
Junior certificate	ages 14 and 15

Full directions for giving all the tests are included in pamphlets which may be obtained from the National Recreation Association, New York City, for a few cents. Tests for girls include dashes, throwing, rope jumping, tumbling stunts, ball bouncing, hop scotch and jumping.

*Achievement Scales in Physical Education Activities for Boys and Girls in Elementary and Junior High Schools. A. S. Barnes and Company, New York, 1934

VI. Conditioning Exercises

The marked current interest in conditioning exercises prompts the inclusion of some of these in this course of study. Children will be interested to know these are the types of exercises which American soldiers are doing day after day in order to prepare themselves for whatever may come.

A. Walking at a brisk pace for fifteen-minute periods. (General Joseph W. Stilwell marched his men out of Burma at the rate of 105 steps per minute.) This should be done with an easy, relaxed movement, arms swinging, chest up, shoulders back, stomach in.

B. Abdominal exercises

1. Standing position: alternate leg movement (bend knee, grasp it and press toward chest)
2. Hands on hips; raise alternate leg forward (knee straight, no trunk movement)
3. Hands clasped behind neck, alternate knee raising upward
4. Lying on back: clasp hands behind neck, raise alternate leg upward; or raise both legs upward
5. Standing position: bend alternate knee upward with opposite arm flung forward

C. Leg and arm

1. Standing position: raise on toes and raise arms sideward
2. Standing position: jump to stride position and fling arms sideways and upwards
3. Hands on hips: squat on heels
4. Hands on hips: raise heels and bend knees
5. Standing position: hands behind neck, alternate side lunging

D. Upper back

1. Standing position: raise arms sideways, shoulder level, palms up, quick circling (up, back, down)
2. Standing position: raise arms sideways with backward movement of head
3. Standing position: bend trunk forward, flinging arms to side and moving back of head
4. Standing position: feet apart, hands grasped behind neck, stretch arm sideways and move head backward

E. Lower back

1. Hands on hips: stand with feet far apart, raise arms sideways, alternate toe touching, right hand to left toe, left hand to right toe

2. Hands on hips: stoop, touch floor with alternate hands
 3. Standing position: trunk bent forward, arms hanging relaxed, spring trunk letting hands bounce against floor
 4. Hands on hips, stride standing position, alternate trunk twisting to side with arms stretching upwards
- F. Following are six exercises used in one of our United States troop training camps:
1. Hands on hips, thumbs toward back
 - a. Extend arms overhead
 - b. Return to place
 - c. Touch toes (knees straight)
 - d. Return to place
 2. Hands on hips, stride position
 - a. Touch both hands to left foot
 - b. Touch both hands between feet
 - c. Touch both hands to right foot
 - d. Return to position
 3. Breathing: standing position, arms hanging
 - a. Breathe in as body is stretched to tip-toe
 - b. Drop body immediately
 4. Lemon squeeze: standing position; feet astride; arms raised sideways to shoulder level
 - a. Bend to right
 - b. Return to place
 - c. Bend to left
 - d. Return to place
 5. Shoulder rolling: standing position; feet astride; arms raised sideways to shoulder level
 - a. Roll shoulders forward and backward
 6. Boxing drill
 - a. Left foot forward and a straight left arm movement forward
 - b. Return to position
 - c. Repeat right

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GRADE ONE

I. Specific Objectives

- A. Develop big muscle skills
- B. Develop ability to follow directions
- C. Develop knowledge and technique for simple games
- D. Arouse interest in games and other activities which the child will meet in life, especially in the near future
- E. Develop rhythmic response in free, spontaneous movements
- F. Improve individual posture
- G. Take advantage of child's desire to imitate and direct this desire into useful channels
- H. Develop skill in performing locomotive movements to music or rhythmic sound
- I. Help develop hand dominance
- J. Develop self-control and other personality traits
- K. Develop dramatic ability

II. Rhythmical Activities

A. Did You Ever See a Lassie*

1. Did you ever see a lassie, a lassie, a lassie,
Did you ever see a lassie do **this** way and that?
Do **this** way and **that way**, and **this** way and **that** way;
Did you ev—er see a lassie do **this** way and that

All the players but one form a circle, clasping hands. They circle around, singing the first two lines of the verse. While they are doing this, the odd player stands in the center and illustrates some movement which he chooses for the others to imitate. During the last two lines of the verse the players stand in place, drop hands, and imitate the movements of the center player, while he continues in unison with them.

When a boy is in the center, the word **Lassie** should be changed to **Laddie**

B. Round and Round the Village**

1. Round and round the vil—lage,
Round and round the vil—lage,
Round and round the vil—lage,
As you have done before.

Form a circle and join hands. One child skips around the outside while the rest sing:

Round and round the village,
Round and round the village,
Round and round the village,
As you have done before.

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The children all raise their hands up high and the one on the outside goes in and out as they sing:

In and out the windows, etc (repeat twice, then sing)
As you have done before.

The child then stops in the circle and faces another while all sing:

Stand and face your partner, etc. (repeat twice)
As you have done before.

The child then runs and is chased by the one she faced and all sing:

Follow her to Boston, etc. (Repeat 2 times, then sing)
As you have done before.

When the child is caught, the two come back into the circle and bow to each other

C. Dickory, Dickory, Dock

1. Formation: single circle, facing the center

a. "Dickory, dickory, dock." Arms raised over head, and waved: right, left, right, from side to side; place the hands at the waist and stamp twice, right and left, on the third and fourth beats of second measure. "The mouse ran up the clock." Three skipping steps to center of circle: right, left, right, and bring heels together.

"The clock struck one": listen and clap hands sharply on "one"

"The mouse ran down": run with tiny quick running steps back to place

Dickory, dickory, dock": wave arms from side to side as in beginning: right, left, right, and stamp, right, left

Repeat music from the beginning

b. Hands on hips, all slide to the right around the circle with three slides; take two stamps, right, left, and face out (back to center of circle). Repeat three slides in the same direction; stamp left, right, and face in. Repeat to the end of the strain. Repeat play from the beginning.

D. Additional rhythmical activities

1. Baa, Baa, Black Sheep	1
2. Little Jack Horner	1
3. I'm Very, Very Tall	2
4. Pussy Cat, Pussy Cat	3
5. Looby Loo	14
6. Animals in the Zoo	1
7. Mulberry Bush	13
8. London Bridge	13
9. How D'Ye Do, My Partner	3

III. Games

A. Flowers and the Wind

The players are arranged in two lines facing each other, at some distance apart. One line or team is designated as the "Wind," the other as the "Flowers." The latter, among themselves, choose the name of a commonly known flower. This team then walks toward the "Wind," whose players try to guess the name the "Flowers" have chosen. If they are finally successful in guessing the name, the "Flowers" run to their home base and the "Wind" players try to tag them. Those who are tagged are brought back by the "Wind" players and are held prisoners, or are out of the game until it is finished. The "Flowers" then take a new name and the play is repeated until half the "Flowers" have been caught and the game is over. The "Flowers" then become the "Wind" and vice versa, and the game starts anew.

B. Squirrel and Nuts

One child is chosen to be "Squirrel." The other children sit with their heads on their desks and their eyes closed. One hand is outstretched on the desk with the open palm up. The squirrel runs lightly around the room in and out among the children. Finally, he drops a nut or other small object in one child's hand. This child immediately chases the squirrel, trying to catch him. If he succeeds in catching him before the "Squirrel" reaches the vacated seat, the "Squirrel" is "it" again. However, if the "Squirrel" reaches the seat before he is caught, the child who is left without a seat, becomes "Squirrel." The other children will watch, with great glee, the "Squirrel," running to his seat for safety.

C. Squirrel in Trees

The players stand in groups of three with hands on each other's shoulders, forming a "tree." Within the hollow of each "tree" is a "Squirrel" busily cracking and eating nuts. There is one "Squirrel" who is without a "tree," but who is busily looking for one. The teacher or student in charge claps her hands and as the "Squirrels" run out and get into new "trees" the odd "Squirrel" scampers into a "tree" vacated by another "Squirrel." The one who is left out now starts looking for another "tree." After all the "Squirrels" have been left out once, they may become part of a "tree" and new "squirrels" take their places.

D. Hide the Thimble

One child is sent from the room after being shown the thimble or other object which is to be found. After he has gone out, the thimble is hidden and at a given signal he comes back into the room to search for it. When he is close to the object of his search, the other children clap, sing, or hum loudly. As he goes farther from it, their clapping or singing becomes very low and then louder again as he approaches it. After he finds the object, he may select another child to take his place.

E. King's Land

This game is also known as "Dixie Land" or "Tommy Fiddler's Ground." The playing space is divided into two parts, one half of which belongs to the "King's Land," and the other to the rest of the group. One child is chosen or designated "King." The "King" is on his own land and the other children challenge him by running into his territory shouting, "I am on King's land, stealing gold and silver." The "King" runs after them and the first one tagged becomes the "King."

F. Cowboy

The cowboy twirls a lasso to make a big circle over his head, with the right hand. Repeat with left hand. The cowboy jumps on his horse and gallops off, throwing the lasso around the animal's neck, horn, or leg and holding him tight until he reaches him and ties him down or leads him behind his horse. He gallops, singing or shouting merrily. The cowboy dismounts from his horse, unsaddles him and feeds him, while he himself sits down or lies down and relaxes.

G. Crossing the Brook

A "brook" is marked off by two parallel lines not too far apart for the smallest child to jump. The children run and jump across without stepping in the "brook," then stand still and jump across with a standing jump. Those who do not make it are out of the game and must dry their shoes and stockings. The "brook" is then made wider and the game continues with a wider "brook" each time, until one child, the winner, is left.

H. Teacher and Class

This game may be played with bean bags or rubber balls. The children are arranged in a circle or semi-circle. One child is designated as "Teacher." The "teacher" throws the object to each individual in turn and the child tosses it back to the "teacher." If a child misses, she exchanges places with the child at the head of the group.

I. Cat and Mice

This game may be played in a schoolroom or in a home. The child who is chosen to be "cat" hides under a table or desk. Several other children, representing "mice," slip quietly up to the desk and scratch on it. The "cat" cries out, "I'm going to catch you," and tries to catch as many as he can. The "mice" are safe only when they are seated in their chairs. The first mouse caught becomes the "cat." If no mouse is caught, the cat must be "it."

If the group of children is large, a different group of mice should be chosen each time.

IV. Primary Stunts

Children of primary age enjoy big-muscle activity and rhythm in stunts. Stunts may often be presented in game form as mimetics. Emphasis should be placed on activity rather than upon competition—all being as active as possible. Practice periods should be short and activities should be repeated.

Some activities such as the forward roll, cartwheel and head stands are fundamental tumbling activities and should be practiced throughout the elementary period.

In setting standards for stunts, care must be taken to formulate them so that a majority of children can, with practice, meet the requirement.

Stunts, other games, mimetics, and story plays will be found on the unit work sheets.

GRADE TWO

I. Specific Objectives

- A. Develop big-muscle skills
- B. Develop ability to follow direction
- C. Develop knowledge and technique for simple games
- D. Arouse interest in games and other activities which the child will meet in life, especially in the near future
- E. Develop rhythmic response in free, spontaneous movements
- F. Improve individual posture
- G. Take advantage of child's desire to imitate, and direct it into useful channels
- H. Develop skill in performing locomotive movements to music or rhythmic sound
- I. Help develop hand dominance
- J. Develop self-control and other personality traits
- K. Develop dramatic ability

II. Rhythmical Activities

A. The Farmer in the Dell*

The farmer in the dell,
The farmer in the dell,
Heigh-o! the cherry-o!
The farmer in the dell.

1. The succeeding verses vary only in the choice in each, and follow in this order:

The farmer takes a wife, etc.
The wife takes a child, etc.
The child takes a nurse, etc.
The nurse takes a cat, etc.
The cat takes a rat, etc.
The rat takes the cheese, etc.

The players stand in a circle with one of their number in the center, who represents the "farmer in the dell." At the singing of the second verse, where the farmer "takes a wife," the center player beckons to another, who goes in and stands by her. The circle keeps moving while each verse is sung, and each time the player last called in beckons to another; that is, the wife beckons one into the circle as the child; the child beckons one in as nurse, etc., until six are standing in the circle. But when the lines, "The rat takes the cheese," are sung, the players inside the circle and those forming it jump up and down and clap their hands in great confusion, and the game breaks up.

*From Bancroft, Jessie H. "Games," revised edition, 1937. By permission of the MacMillan Company, Publishers

B. The King of France*

The King of France with forty thousand men
 Marched up the hill and then marched down again.

The players stand in two rows or groups facing each other. Each group has a leader who stands in the center and represents a king leading his army.

The game or play is a simple one of imitation, in which the players perform in unison some action first indicated by one of the leaders

The leaders of the two groups take turns in singing the verse, at the same time marching forward during the first line of the verse, and back again to their places during the second line, illustrating the action that is then to be taken by all. The verse is then sung by both groups, while advancing toward each other and retreating, performing the movements indicated by the leaders. The movements illustrated by the leaders may be anything suitable to any army of men, the word describing the movement being substituted for the line, "Marched up the hill," thus:

The King of France with forty thousand men
 Waved his flag and then marched down again.

The following variations are suggested, each of which indicates the movements to go with it: gave a salute, beat his drum, blew his horn, drew his sword, aimed his gun, fired his gun, shouldered arms, pranced on his horse

It is scarcely necessary to say that a real flag and drum add much to the martial spirit of the game, and if each soldier can have a stick or wand over his shoulder for a gun, the esprit de corps will be proportionately enhanced

C. Oats, Peas, Beans, and Barley Grow*

Oats, peas, beans, and barley grow
 Oats, peas, beans, and barley grow;
 Can you or I or anyone know how
 Oats, peas, beans, and barley grow.

Thus the farmer sows his seed, Thus he stands and takes his ease,
 Stamps his foot and claps his hands, And turns around to view his lands.

A-waiting for a partner, A-waiting for a partner,
 So open the ring and choose one in,
 Make haste and choose your partner.
 Now you're married, you must obey,
 You must be true to all you say.
 You must be kind, you must be good,
 And keep your wife in kindling wood.

The players form a ring, clasping hands, and circle about one of their number who has been chosen to stand in the center. They all sing the first four lines, when they drop hands, and each player goes through the motions indicated by the words: sowing the seed with a broad sweep of the arm, as though scattering seed from the hand; standing erect and folding the arms; stamping the foot; clapping the hands; and at the end of the verse, turning entirely around. They then clasp hands again and circle around entirely, singing:

Waiting for a partner, Waiting for a partner,
 and standing still for the last two lines;
 So open the ring, And choose one in.

On these words the one in the center chooses one from the circle as a partner. The player who was first in the center then returns to the circle

*From Bancroft, Jessie H. "Games," revised edition, 1937. By permission of The MacMillan Company, San Francisco, Publishers

and the one chosen as partner remains in the center while the game is repeated. If large numbers are playing, four players may stand in the center instead of one, and in that case, of course, four partners will be chosen. This form of playing the game has traditional sanction, and at the same time adapts itself nicely to the large numbers that often have to be provided for under modern conditions of playing.

D. Additional rhythmical activities

1. Chimes of Dunkirk	3
2. Danish Dance of Greeting	13
3. Roman Soldiers	2
4. See Saw	4
5. I See You	13
6. Thread Follows the Needle	1
7. The Swing	3
8. Popcorn Magic	3

III. Games

A. I Say Stoop

The children may stand in a circle or in rows, according to available space on playground, in gymnasium, or in classroom. The teacher or a chosen student stands in the center of the circle, or in front of the students who are in rows. When the leader says, "I say, stoop!" she and the pupils stoop and quickly rise again. Occasionally, she may say, "I say, stand!" and stoop. If anyone stoops at this command, he is out of the game. The last one left standing is the winner of the game, and may be selected as leader for the next game.

B. Additional games, stunts, mimetics, and story plays will be found in the unit work sheet

IV. Stunts

A. Backward Roll

Stand with back to mat. Bend knees and roll backward, head forward. Hands are placed on the mat near shoulder and push as the body turns over and comes to a standing position. This may first be tried from a sitting position on mat.

B. Cartwheel

The arms and legs become the spokes of the wheel. Stand with feet apart (legs may be slightly bent when first learning). Swing body sideways to right, right hand on floor and left foot leaving floor. The left arm goes over the head and touches floor as the right leg leaves floor. Left foot receives weight first and then the right. Work for erect position.

C. Heel Knock

With feet slightly apart jump into the air and click heels once before landing. Arms may be used to get height.

V. Mimetics

A. Jack in the Box

Stand with feet slightly apart; on count one, knees are bent; spring high into the air and land on toes on count two

B. Rowing

Sit on desks, facing back of room with feet under edge of seat. Lean forward keeping back flat and head erect, and reaching forward with arms: (1) Move body back and bend arms; (2) Continue in rhythm.

VI. Story Plays

A. Water fun

1. Run down to the water
2. There's a raft not very far from shore. Let's swim out to it—swimming movement with arms; use the different strokes.
3. Climb up on the raft—use arms and legs
4. Rest from long swim—breathing deeply
5. Stand up and dive into water
6. Swim to rowboat
7. Friends pull you in
8. Grasp oars and row to shore
9. Splash water at each other in shallow water
10. Lie on beach and rest

B. George Washington

1. Run out to the field with axe—run around room as if carrying axe over shoulder
2. Chop down cherry trees—swing from right shoulder to ground
3. Run to barn and mount the pony; ride over rocky field—run and jump around room
4. Tumble off pony—fall to floor; get up quickly
5. Hurry back to the house—run

C. The Wind

1. The wind in March is a strong wind; it blows the clouds across the sky—run with arms outstretched
2. It fills the sails of the ships and makes the boats travel fast—raise one arm upward and the other at shoulder height; move in rocking movement
3. It makes the weathervane turn—stretch arms out shoulder high, turn from the waist
4. It blows the trees—backward and forward, bending and then swaying from side to side
5. It helps to fly kites—children run around room following kites
6. It makes the windmills go round in Holland—children get in twos, back to back, raise right arms to shoulder height and bend first to right and then to left, in imitation of a windmill

D. My Shadow*

1. "I have a little shadow that goes in and out with me"—numbers 1 standing still and numbers 2 winding in and out between numbers 1 with a little light running step. Reverse.
2. "And what can be the use of him is more than I can see"—all standing still and shaking heads
3. "He is very, very like me from my heels up to my head"—stooping down, touching heels, then stretching up tall and touching top of head. Repeat several times.

*Permission of John Callahan, State Superintendent, Madison, Wisconsin

4. "And I see him jump before me when I jump into my bed"—jumping around in circle, just one big jump at a time and on signal
5. "The funniest thing about him is the way he likes to grow, Not at all like proper children, which is always very slow"—placing hands on head, stretch tall
6. "For he sometimes shoots up taller, like an Indian-rubber ball"—jumping up with arms stretched over head on signal. Repeat several times.
7. "And he sometimes gets so little that there's none of him at all"—deep knee bending with hands on hips
8. "He hasn't got a notion of how children ought to play, And he can only make a fool of me in every kind of way"—skipping freely around circle
9. "He stays so close beside me, he's a coward you can see. I'd think shame to stick to nursie as that shadow sticks to me!"—numbers 1 place hands on shoulders of numbers 2 and hop around circle with short little hops in rhythm.
10. "One morning very early, before the sun was up, I rose and found the shining dew on every buttercup; But my lazy little shadow like an arrant sleepy-head, Had stayed at home behind me and was fast asleep in bed"—all sitting on floor with legs crossed and heads bowed as if asleep. Numbers 2 arise and stretch hard, shaking heads at numbers 1 who remain asleep.

E. Other stories which can be converted into story plays

1. How the Rhinoceros Got His Skin
2. The Wind
3. Snow White and the Seven Dwarfs
4. The Gingerbread Man
5. How the Dandelion Got Its Name
6. The Golden Ball
7. Jack the Giant Killer
8. The Huntsmen
9. The Musicians of Bremen
10. Kipling (Just So Stories)
11. Stevenson (Child's Garden of Verses)
12. Grimm (Household Tales, Burt Edition)
13. Florence Holbrook (Dramatic Reader)
14. Ida Huntington (The Garden of Heart's Delight)
15. Grimm's Fairy Tales
16. Joseph Jacobs (English Fairy Tales)
17. de la Mare (Poems of Childhood)

GRADE THREE**I. Specific Objectives**

- A. Continue those objectives listed for first two grades
- B. Develop capacity for leadership
- C. Develop ability to forget self through group competition
- D. Provide situations for development of courtesy and fair play
- E. Develop active response to rhythm through additional locomotive movements
- F. Gradual improvement of posture and physical condition of each pupil
- G. Develop helpfulness and interest in others
- H. Develop skills in big-muscle activities, handling of balls, and body control

II. Rhythmical Activities**A. The Shoemaker's Dance (Danish)***

Formation: Double circle. Partners face each other.

1. Measures 1-2. With arms raised in front to shoulder level, fists closed, roll one arm over the other three times. If desired, the children may sing, "Wind, wind and thread."

Repeat, reversing the rolling

Measure 3. Pull hands apart twice with jerk, singing, "Pull the thread, pull the thread."

Measure 4. Fists closed; tap one fist with the other three times, as if driving pegs; singing, "And tap, tap, tap."

2. Measures 9-16. Join inside hands. Girls take hold of skirts with outside hands, boys put hands at waists and skip around the circle, starting with outside foot.

Repeat as many times as desired

B. Children's Polka

Players form a single circle around room, couples facing each other, hands joined and arms extended shoulder high

1. Measures 1-2. Partners slide to center of circle.
2. Measures 3-4. Return to places.
3. Measures 5-8. Repeat.
4. Measure 9. Clap own thighs, then clap hands in front of chest.
5. Measure 10. Clap partner's hand three times.
6. Measures 11-12. Repeat last two figures
7. Measure 13. Point right toe forward and, resting right elbow in left hand, shake forefinger of right hand at partner three times.
8. Measure 14. Repeat with left foot and hand.
9. Measure 15. Jump four times in place, making a quarter turn each time and turning around away from partner.
10. Measure 16. Stamp three times, beginning with right foot

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C. Peas Porridge Hot*

Peas Porridge hot, peas porridge cold,
Peas porridge in the pot nine days old;
Some like it hot, some like it cold,
Some like it in the pot nine days old.
Chorus: Tra, la, la, la, la, la, la, etc.

Formation: Double circle, partners facing. Verse.

- 1. Line 1: Clap both hands on thighs; clap own hands together; clap partner's hands. Repeat.
- 2. Line 2: Clap thighs; clap own hands; clap right hands only; clap own hands; clap left hands only; clap own hands; clap partner's hands
- 3. Lines 3 and 4: Repeat action from the beginning (count 1, 2, 3; 1, 2, 3; 1, 2, 3, 4, 5, 6, 7)

Chorus: All raise arms sideways (hands joined), and take sixteen sliding steps around the circle to the left; then sixteen in the opposite direction. During the last measure all move to the right and take new partners. Repeat from the beginning with the new partner.

D. Additional rhythmic activities

- 1. Jolly is the Miller 3
- 2. Carrousel 3
- 3. Taffy was a Welchman 3
- 4. Nest Making 5

III. Games

A. Chinese Tag (5-60 players or more)

The person who is "it" tries to tag one of the other players. The one whom he tags then becomes "it," but as he runs after the other players, he must hold on with one hand to that part of the body which was tagged—the elbow, head, knee, shoulder, ankle, etc. When he tags someone else, he may drop his hand. If the group of players is extremely large, it may be advisable to have two or three people "it" at the same time.

B. Follow Chase (15-60 players)

The players are arranged in a circle, arm's distance apart with hands on each other's shoulders. One person is selected to be the "runner," another the "chaser" or "it." The "runner" stands under the raised arms of two in the circle and the "chaser" in the same position on the other side of the circle. At a given signal the "runner" starts running in and out of the circle, around the circle or through it, and the "chaser" must follow his exact path. When the "runner" is caught, he becomes a part of the circle, the "chaser" becomes the "runner," and the "ex-runner" selects a new "chaser."

IV. Stunts

Children in the third grade become interested in stunts as self-testing activity. They wish to excel. Charts to keep records of achievement motivate stunts.

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GRADE FOUR**I. Specific Objectives**

- A. Continue those objectives listed for Grade Three
- B. Increase joy and skill in rhythmic movement
- C. Develop standards of sportsmanship and ability to play with group
- D. Know rules and simple strategies for a few seasonal athletic games
- E. Teach safety skills in playing and handling equipment
- F. Develop alertness, quick response, and judgment
- G. Develop proper spirit toward victory and defeat
- H. Develop joy in playing for play's sake
- I. Give a fund of activity material for use in leisure time
- J. Develop posture standards and habits

II. Rhythmical Activities**A. Nixie Polka (Swedish)***

A little while we linger, 'mid many joys and many fears. Come, little goblins, come, and play, come let us sing and be jolly.

- 1. Measures 1-4: Spring and place the right foot forward, with toe up; at the same time, the left foot is placed backward. Change feet and place the left foot forward. (Two measures.) Repeat, two measures. On the last note, clap hands once.
- 2. Measures 5-8: The leader turns and takes twelve short running steps to find a partner, while the others run in place
- 3. Measures 1-4: The two partners join hands and hop first on one foot then on the other
- 4. Measures 5-8: The leader claps hands, jumps to the left, and the partner places his hands on the shoulders of the leader; the two proceed to find a third partner, by the time the eighth measure is finished. Repeat from beginning.

If the circle is large, there should be several leaders. As the lines grow longer they should finally join and form a circle which is the completion of the play. The clapping and jumping should be done in unison.

B. Indian Dance*

Formation: Children are seated cross-legged in a single circle to offer a prayer to the Great Spirit and to smoke the pipe of peace

Pantomime: Measures 1-4: raise the arms overhead and sway the body forward; raise the trunk; repeat, bending and raising twice

Measures 5-8: repeat, bending right and left

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Measures 9-12: smoke the pipe of peace four times; an imaginary pipe is passed from one to the other; jump up on the last count, fling the arms straight up over the head and yell, "Wow!"

Dance: Face in circle and advance counter-clockwise with Indian step

1. Measures 1-16: Crouch forward, leap on the right foot, and swing the left up at the back; leap on the left foot, and swing the right up at the back. On the second measure, take three quick running steps, right, left, right, and down as the steps are taken. Repeat for sixteen measures, alternating right and left.

2. Measure 17: Squat down; slap the floor with the right hand; repeat with the left hand

Measure 18: with right hand over the mouth, yell, "Wow, Wow, Wow"

Measures 19-20: Repeat above to the left

Measures 21-24: Repeat Indian step twice

Measures 25-32: Repeat all, ending with "Wow"

C. Sample lessons in tap**

1. Explain the numerical system of tap terms. Explain and illustrate a "1" and a "2." Combine the 2 and 1 to make the 3. Explain the music value: that is, the way 2 comes in on the "and" beat, the 1 on the main beat. Play some easy even-time piece and let the children try 3's.

2. Review briefly Lesson 1; then begin a simple routine, using 3's; explain any extra steps, such as toe-heel, or grapevine, that may appear in the routine

Other lessons go on as above, increasing the difficulty of routines and adding techniques, 3-3-7, 5-etc.

D. Yankee Doodle*

Music: Yankee Doodle

Solo or group formation; red, white and blue cane held in both hands, top of canes all pointing same way:

1. Four triples, r, l, r, l, tap sideward r, l; repeat all

2. Four triples, r, l, r, l; four high, accented walking steps forward; repeat triples and walking steps backward

3. One slow triple right; two short jumps backward, feet together; one triple left; one long step forward right, bringing left up to it; repeat all

4. Four triples, r, l, r, l; take cane in right hand and twirl around head four times; repeat all

5. Four triples, r, l, r, l; jump to stride sideward on toes, bring feet together

6. Repeat step 3

7. Exit: Take cane in right hand, and tap on floor; beginning right, tap forward, then step down on foot; same left, and so on until off

The four triples may be halved to two, if desired.

Costume: red, white, and blue Uncle Sam hats; canes as above; dance rompers or Uncle Sam suits

E. Additional rhythmic activities

1. Minuet I	1
2. Dutch Couple Dance	3
3. Finnish Reel	3
4. Pop Goes the Weasel	3
5. Additional clog	
a. Newsboy Clog	6
b. Bill Magee	6

**See Chapter on Tap Definitions

*From "Elementary Tap Dances" by Katherine Ferguson, copyright, 1930. Used by permission of Katherine Ferguson

III. Games

A. Bean Bag Target Toss

If the playing group is large, several bean boards should be used. The board may be any size desired, usually with seven holes several inches in diameter. The largest hole may count five points; the next two largest, ten points; the next two, twenty-five points; one, fifty points; and the smallest, 100 points. A line is drawn any distance from the bean board which may be set on metal standards at an angle of forty-five degrees, or against the wall. Each child throws three bean bags in succession until every one has had a chance to throw. The leader keeps score and the child with the highest score is the winner.

B. Hook On (12-60 players)

The players choose partners and arrange themselves in a single circle, linking inside arms and the outside hand on the top. Two players are selected, one to be "it" and the other "runner." "It" stands on one side of the circle—the runner on the other. When the leader gives a signal, the runner may run any place he wishes, around the circle, in and out, etc. At any time, he may attach himself to any couple by linking his arm to one of them. The extra player then becomes the runner.

The object of the game is for "it" to tag the runner before he becomes a part of the circle. If he is tagged, the runner becomes "it" and the latter takes the place of a new runner selected by him.

In order that more players may take active part in the game, it is advisable to have several smaller circles, rather than one large one

C. Newcomb (10-40 players)

An equal number of players are arranged on either side of a volleyball net. When the referee gives the signal "play," one side throws the ball over the net, trying to strike the ground in the opponent's court. The opponents try to catch the ball before it strikes the ground and return it. If they are successful, they are given the opportunity to "serve" or throw the ball. If the serving side succeeds in striking the floor with the ball, it is one point for that side. They keep serving as long as they make points. The game may be finished when either side has 15 points, or they may play ten-minute halves, changing sides at the end of the half.

D. Circle Dodge Ball

The players are divided into two teams. One team stands grouped within a large circle drawn on the playing area. The other team stands outside of circle. The game may be played with a volleyball or basketball. The object of the game is for the outer team to eliminate as many members of the inner team, as quickly as possible, by hitting them with the ball. When the ball is thrown by a member of the team on the outside of the circle, the team within the circle may step aside, dodge, stoop, or jump out of the way of the ball. The one who is hit is eliminated temporarily. If two are hit by the same ball, the one hit first is out, the other is safe. The referee blows the whistle, and the game is stopped while the person eliminated steps out. Another whistle is blown for a new start. If the ball stays within the circle, a member of the outer team may step inside to recover it. Only the inner scores. One point is received for each member left in the circle at the end of a ten-minute half. Then the two teams change places.

E. Streets and Alleys (12-40 players)

The players, except two, are arranged in four or five rows. Each player is arm's distance from the player in front and back of him and also from the players on each side of him. When all are facing forward with arms outstretched, one's fingertips should just touch those of the players who are now on either side of him. When everyone faces right, one's fingertips should also touch those of the players who are now on either side of him but who were formerly in front and back of him.

All are facing forward, arms outstretched. The one who is "it" runs after the runner, trying to tag him. They may run up and down any row they wish. When the leader calls "streets," the players make a "right, face" still with arms outstretched, and the runner and "it" must change their line of direction. When the leader calls "alleys," the players make a left face and the runner and "it" must again change their line of direction. When "it" catches the runner, they both go into the rows, each selecting a player to take their respective positions. If "it" does not catch the runner after a reasonable length of time, he becomes runner and the runner selects a new "it."

F. Still Pond (10-60 players)

All the players are in a large circle, except one, who is blindfolded by putting a paper bag over his head. While he is counting ten, the other players move to the right in the circle until he calls, "Still Pond!" He gives the players five steps, ten steps, or whatever he may wish. The players may take the given number of steps in any direction, and must then stop; whereupon, the blindfolded player walks about trying to catch one or more of them. Then the blindfolded player tries to guess who it is. If his guess is correct, the two exchange places. If it is not correct, he is "it" again.

G. Rabbits' Tails (5-40 players)

Equipment: a collection of odd bits may be used, such as stones, blocks, sticks, ropes, pencils. Each player must have a handkerchief.

The players are divided into two equal groups, one at each end of the playing space. The collection is placed in the center, half-way between the two groups which are stationed in their "home" places behind a line drawn at each end. Each player slips his handkerchief under his belt at the back. At a given signal all the players of both teams run forward to get the treasure. Only one piece may be taken at a time; it will be brought back; and the rabbit may then run out again for another piece. A rabbit may be eliminated at any time by a hunter from the opposite team pulling out his tail. The side which has the most treasures and the most tails at the end of ten minutes is the winner.

H. Ostrich Tag (5-60 players)

One player is "it" and attempts to tag the other players. A player's only safety is to raise one knee, slip an arm under it and take hold of his own nose. When a player is tagged, he becomes "it."

I. Arch Ball (10-60 players)

The players are divided into several rows, the same number in each row. Each stands an arm's distance behind the player in front of him.

At the signal, the first player in each row passes a basketball to the person behind him and so on to the end player, who takes the ball, runs to the head of the line, passes the ball over his head to the person behind him, etc.

The row which finishes first is the winner.

J. Stool Ball (10-30 players)

Equipment: a small rubber ball or tennis ball, a stool, a small packing box or a pail placed upside down. This is placed at one end of the playing space.

About twenty feet away, a line is drawn. The players take turns throwing the ball from this line, trying to hit the stool. One person who stands beside the stool is called "stool defender." He may prevent the stool from being hit by batting the ball back with his hand. The player who successfully hits the stool may change places with the "stool defender." If the "defender" succeeds in batting the ball back, and another player catches it, he may change places with the "defender." The game continues until everyone has had an opportunity to be "defender."

K. Puss in the Circle (10-40 players)

The players, except one, are arranged outside a large circle marked on the ground. "Puss" stands in the center. The players may step in and out of the circle or, if brave enough, may even dart across the circle. As soon as one's foot is in the circle, "Puss" may try to tag that player. If she tags one, he becomes a "Puss," also, and helps the original one tag the others. The last one tagged is the winner, but he is the first "Puss" for the next game.

L. Jumping Relay Race

The players are arranged in files, each representing a team, behind a starting line. The finishing line is about 20 feet away. At a signal, the first player on each team jumps forward with both feet at once and continues jumping to the finish line, then turns and runs back, touching the next in line. He goes to the end of the line. The team finishing first is the winner.

M. Underleg Ball

Equipment: a sponge rubber ball or tennis ball. A small baseball diamond is drawn on the playground. The players are divided into two teams. The positions are the same as in in-door baseball. The pitcher pitches the ball underhanded to the batter who attempts to catch it in one hand only. If he misses, it is called a strike. He is allowed three strikes, but is out if he misses the third. If the batter catches the ball, he raises his knee, throws the ball under his leg to the fielders and runs the bases.

Rules for Playground Ball or Indoor Baseball may be used.

IV. Stunts**A. Through the Broom**

Grasp ends of wand, holding it in front of you, fingers down. Lift right leg and put foot around left arm on inside of wand. Shift weight to both feet and pull wand over back. Shift weight to right foot and slip out with left foot. At end, wand is again in front of you, but hands are in different position.

B. Coffee Grinder

Partners face each other; take hold of right hands, grasping hands loosely. Swing left foot over right hand and then right foot over, completing the circle. One partner begins and the second begins when first is half through. With practice this movement becomes smooth and can be done rapidly.

C. Human Fly

Squat with hands on floor just in front of wall. Shift weight to hands and walk up wall to a handstand position. Head should be up. This is good practice for the handstand.

D. Broad Jump

Stand in front of mat or sawdust pit, weight on toes, and swing arms back and then forward; bend knees to give more distance to jump. Establish a class standard which the majority can reach.

E. Fifty-Yard Dash

Lines should be carefully marked. Dash should be timed and recorded.

F. Continuous Forward Roll

Make several forward rolls, keeping body in a ball. Some prefer to cross legs after each roll.

G. Forward Roll, Followed by Headstand

Instead of second roll, child comes to headstand

H. Elephant Walk

This is most successful if the two doing the stunt are of different size. One (the taller), stands with feet apart. Number Two faces him and puts hands on number One's shoulders. Number One puts hands under number Two's arms. Two jumps up and locks feet behind One. Two's body is bent backward and downward as One bends forward. Two grasps One's heels and straightens elbows. Head is up. Number One walks forward carrying Two.

I. Cock Fight

Two children sit on mat facing each other. Knees are flexed and arms are clasped in front of knees. Toes of the two touch each other. At the signal each tries to lift the other's feet to make him lose balance.

J. Fish Hawk Dive

Fold piece of paper once so it will stand about two inches above floor. Kneel on right knee about a foot from paper. Extend left foot and grasp left ankle with left hand. Without losing balance bend forward and pick up paper with teeth.

K. Double Heel Knock

Do this in heel knock but click heels high while in the air. Swing arms to get height in the jump so that there will be time for two clicks.

L. Dance Steps

Minuet bow, Dutch step, and polka may be taught as stunts before presented in rhythm

V. Mimetics

A. Standing Broad Jump

Raise arms forward, and upward while rising on toes (1). Swing arms downward and backward while bending knees; inclining body forward, swinging arms forward, stretch body upward, jump forward to deep-knee bending position, arms forward (2). Straighten to a position on toes (3). Drop heels (4).

B. Crouch Start in Track

"On your mark"—kneel on right knee (at instep of left foot). Place hands on starting line with thumbs forward and fingers to the side or weight on knuckles of hand. "Get set"—lift body up stretching right knee, ahead, in line with body. "Go"—straighten up and run forward a few steps.

C. Basketball Throwing

Stand with feet apart. Swing arms overhead (1). Throw from that position (2). Repeat in rhythm. Swing hands up in front of chest (1). Throw from that position (2). Swing hands over one shoulder (1). Throw from there (2). Swing arms to a position at the side of one hip (1). Throw ball from that position (2). Swing arms to position between legs (1). Throw (2).

D. Batting a Baseball

Turn to right, feet in stride position, hands over right shoulder as if holding bat (1). Sway forward as batter swings at ball (2). Return to position one (3). Turn front with hands at sides.

GRADE FIVE**I. Specific Objectives**

- A. Continue those objectives listed for the fourth grade
- B. Know rules, technique, and strategies of simplified forms of seasonal athletic games
- C. Develop an appreciation of the dances of the countries studied in Social Sciences
- D. Develop skill in more difficult rhythmic movements
- E. Develop desire for self-improvement through a testing program
- F. Develop safety skills involving judgment of speed, best technique, and equipment
- G. Increase speed and skills in games and handling balls
- H. Promote desire for wholesome associations and recreation
- I. Develop power of analysis in game situations and ability to be an official

II. Rhythmical Activities**A. Sellinger's Round (English)***

Formation: single circle, hands joined

- 1. Measures 1-8: eight running steps to the left, two steps to a measure; repeat to the right (the running step is performed with considerable bending of the knees)

- 2. Measures 9-12: drop hands and advance toward the center with four running steps, hands swinging carelessly at the sides; to place with four running steps

Measures 13-16: join hands, repeat, advancing to the center with arms held diagonally forward and upward. Retire to place with four running steps, bending the body forward and lowering arms.

Measures 17-18: partners face; balance to partners as follows: step toward center of circle with slight knee bending, bring outside foot to inside foot, raise and sink heels; repeat, stepping toward outside of circle

Measures 19-20: turn single; turn toward the inside of the circle with four running steps (good bending of knees on the turn), and face the front

- 3. Measures 1-8: repeat 1, above

Measures 9-12: break the circle and form two lines while advancing with four running steps; retire, arms swinging carelessly at the side

- 4. Measures 13-16: join hands and advance with raised arms; retire with arms lowered

Measures 17-20: balance to partners and turn single

Measures 1-8: finish with 1

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B. Hansel and Gretel*

Formations: In rows, six in a row; partners facing; the couples nearest the back of the room are called the head couples

1. Measures 1-3: head couples step toward the back of the room; girl curtseys and boy bows (see 1, *Mistress Mary*, Page 107); other couples remain in place

Measure 4: head couple faces front, with inside hands joined; boy with hand on hip, girl taking hold of skirt; each starts with outside foot

Measures 5-6: heel and toe polka, with outside foot, between lines of children (see *Trixie Polka*)

Measures 7-8: repeat

Measures 5-8: turn toward partner, face the rear of the room; each begins with inside foot and does heel and toe polka two times, returning to position; partners face and join both hands, forming an archway

2. Measures 9-16: the couple at the foot (sixth couple) face the rear of the room; join inside hands and do the heel and toe polka toward the rear of the room under the arch and stand next to the head couple; face each other; and place hands on hips; as soon as the sixth couple has passed the fifth couple, the fifth couple face the rear of room and do the heel and toe polka up the line, and stand beyond the sixth couple; this continues until the head couple is at the foot; the line should move down gradually while the couples are doing polka step

3. Measure 17: hands on hips; stand still

Measure 18: stamp feet (boy) left, right, left; (girl) right, left, right

Measure 19: hands on hips; stand still

Measure 20: clap hands over head three times

Measure 21: point left foot (girls right) forward

Measure 22: point right foot (girls left) forward

Measures 23-24: partners join hands and run around to place with short running steps

Measures 17-18: same as 3, except that the head is nodded up and down on measure 18; on measure 20 snap fingers of both hands over head

Repeat from the beginning until each couple has passed down and back between the lines; if desired, a skip or a running step may be substituted for the heel and toe polka step used in 2; in this case, measures 9-16 should not be repeated. Singing should accompany the music.

Hansel and Gretel

Little playmate dance with me,
Both your hands now give to me.
Point your toe, 'way we go,
Up and down the merry row.
Tra la la la la la, Tra la la la la la,
Tra la la la la la, Tra la la la la la,
With your feet go tap, tap, tap,
With your hands go clap, clap, clap,
Point your toe, 'way we go
Up and down the merry row
With your head go nip, nip, nip,
With your fingers go snip, snip, snip
Point your toe, 'way we go
Round and round so merry oh.

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C. Golden Slippers*

Solo or group formation

1. Triple right backward, ending so that feet are in a straight line; step tap forward on left, and back on right. Repeat all, beginning left. Triple right in place, tap down sideward to right, and take a swing pivot around to right and end with three down taps in place, L, R, L. Repeat all from beginning.
 2. Eight triples beginning right; bell step four times, R, L, R, L
 3. Four steps to right; quarter-turn to left and eight small running steps to place, accenting each step and raising heels high; repeat slap steps left, quarter-turn right and repeat running steps to place. On seventh and eighth count of running steps turn to face front and get feet together.
 4. Jump back on heels. Step tap down back with right, step back with left so feet are together. Do all this four times. Travel forward to place with eight triples.
 5. Tortiller to right with both feet four times; four triples in place beginning right; repeat to left
 6. Four slap steps to left; quarter-turn to left and run backward eight steps; repeat slaps and running until exit is made
- Costume: Dancing rompers with small crepe-paper hats fastened on one side of the head. Large paper bow neckties. May be done in black face and minstrel costume.

D. Additional rhythmic activities

1. Bleking	13
2. Chebogar	3
3. Captain Jinks	2
4. Seven Jumps	2
5. How-Do-You-Do	2
6. Additional Clog	
a. Liza Jane	7
b. Country Dance	8

III. Games

A. Marbles—Boys

B. Man, Monkey, Crab (9-36)

Boys, especially, like this race. There may be from 3 to 9 players in each file. The players in the files number off 1-2-3. Number 1's represent the men; 2's the monkeys; and 3's the crabs. A line is drawn at each end of the playing space, one representing the starting point and the other the goal. At a given signal the men from each line run to the goal and back, and touch the monkey who is next in line. The monkeys run on all fours to the goal and return, touching the crabs, who then start out backward with face up, racing to the goal and back. The file which finishes first is the winner.

C. Hoop and Pole (8-40) (Hopi Indian Game)

Equipment: two hoops or large rings and at least six darts. A dart may be made with a corn-cob or large cork with a blunt stick in one end and two feathers in the other. An arrow such as comes in a child's archery set is quite suitable since the one end of the arrow is rubber tipped. Darts may be secured from the Apex Manufacturing Company, Morristown, Pennsylvania, or bean bags may be used in place of the darts.

*From "Elementary Tap Dances" by Katherine Ferguson, Copyright, 1930. Used by permission of Katherine Ferguson.

Two lines are drawn 20 feet apart. The players are divided into two teams with a captain for each team. The teams face each other in rows of three. The captains walk through the center area about 9 feet from each team, rolling the hoops back and forth. Three players from each team each throw a dart all at once.

In scoring, a dart which goes through one hoop counts one point; through both hoops, four points

A scorekeeper and referee will be required if the group is large. The next time, three new players from each team are allowed to throw their darts; after all players have had an opportunity to throw their darts, the team which has the highest number of points is the winner.

D. Promotion Ball (12-20)

Equipment: a large rubber ball, volleyball or soccerball. The players are grouped in a large semi-circle with each place numbered from 1 to 12 or 20, according to the number of players. One player who is selected as leader stands in a larger circle in the center of the diameter. The leader bounces the ball to any player who must catch it and return it to the leader. If a player misses a catch, he must go to the end of the players, and all players in between his position and the end move up one place. If the leader fails to catch the ball, he must go to the end of the line, and number one becomes the leader.

If a ball is thrown in such a way that it is impossible to catch it, it is called unfair and the one who throws it goes to the end.

IV. Individual Self-Testing Activities

- A. Rope jumping
- B. Jump and reach
- C. Broad jump
- D. High jump
- E. Throwing baseball for distance
- F. Throwing baseball for accuracy
- G. Throwing basketball for distance
- H. Throwing basketball for accuracy
- I. Running races of various types
 - 1. Short dashes
 - 2. Relays
 - 3. Potato races
 - 4. Hobble races
 - 5. Obstacle races
- J. Chinning

V. Tumbling

Children in these grades enjoy stunts as self-testing activities. The class may be handled by the use of squad organization. This affords training for leadership and may be the basis for contests in achievement between squads. Couple and group stunts become more popular. Boys' and girls' standards should differ in some activities. Care must be taken to avoid excessive strain, by planning a variety of stunts during a period which will call for

different abilities. The whole class may change stunts at one time. Three or four squads may be doing different stunts, using different equipment. By rotating, it is possible to change activities and at the same time receive the maximum use of equipment. Avoid stunts in which children of the same size lift each other.

A. Monkey Walk

Begin monkey walk from same position as crab walk, hands and feet on floor, face upward. Lift right foot and right hand and walk backward. Before this same foot is placed on the floor again, hit right hip with right hand. Repeat same to left and do it as fast as possible.

B. Turk Stand

Sit on the floor, place left foot as high as possible on right thigh, cross right leg over left, and place right leg high on left thigh. Come to kneeling position and take small steps. This may be combined with a forward or backward roll or a headstand.

C. Handstand

When children have practiced Human Flag or Cartwheels until they feel confident that they can support their weight on their hands, they are ready to try the handstand. Support may be gained by doing the handstand against a wall or by having two children take firm grip of each other's hands over a mat. Place hands on the floor, throwing both legs upward; head is up and back is arched; toes are pointed upward. Come down in same way.

D. Airplane

Place weight on one foot. Lean forward, keeping head up, extending other leg until body makes a straight line. Arms are extended sideways to form wings of plane and help in maintaining balance for ten counts.

E. Human Top

Sit on floor. Draw legs up to body and clasp legs firmly. Start by rolling forward and around to side, to back, and back to front.

F. Camel Walk

This stunt is similar to Elephant Walk. It is easier to do when one of the persons is a little larger than the other. The smaller person stands in front of Number One—both facing in the same direction. Number Two jumps up and locks his legs above hips of Number One. Number One assists him by placing hands under Two's arms. Number Two lowers trunk and crawls between One's legs and grasps his ankles. One drops forward on hands and walks.

G. Rocking Chair

Two sit down facing each other, feet extended, partner's leg between own. Each sits on the other person's feet and grasps the hands of partner. Rock by having one person lean back and pull up partner. Other repeats this and a momentum is gained which resembles a rocking movement.

H. Wooden Man

Number One lies on the floor, hands at sides, keeping body still. Two and Three stand on sides near his shoulders. They each place one hand under shoulder and the other under arm and back and lift until One is in a standing position. One must not move body.

I. Indian Wrestle

Wrestlers lie on their backs, right sides together. They lock arms at elbows. At signal, wrestlers raise right legs, lock them and try to roll opponent upon his back. The left hand may be used for balance.

J. Base Running

Bases should be measured to be the size of those used in softball. A stop watch may be used to measure the accurate time that it takes an individual to run the bases.

K. Hop, Step, Jump

With the foot behind a line, the contestant hops as far as he can—landing on same foot, then steps and jumps landing on both feet. A sawdust pit or mat should be used for landing.

L. Dance Steps

Mazurka; two-step, or simple tap steps related to children's rhythm work, may be used as part of the self-testing program

GRADE SIX

I. Specific Objectives

- A. Continue those objectives listed for Grade Four
- B. Know rules, techniques, and strategies of simplified forms of seasonal athletic games
- C. Develop an appreciation of the dances of the countries studied in Social Sciences
- D. Develop skill in more difficult rhythmic movements
- E. Develop desire for self-improvement through a testing program
- F. Develop safety skills involving judgment of speed, best technique, and equipment
- G. Increase speed and skills in games and handling balls
- H. Promote desire for wholesome associates and recreations
- I. Develop power of analysis in game situations and ability to act as an official

II. Rhythmical Activities

A. Rye Waltz*

Music: Schottische and Waltz tempo

- 1. Waltz position: extend left foot to side, toe lightly touching the floor (1), draw left foot just behind right heel, toe lightly touching the floor (2), left toe to side again (3)
 - Left toe back (4) 1 bar
 - Slide close, slide close (1-2) 1 bar
 - Slide close, step to left (3-4) 1 bar
 - Repeat the same right, thus:
 - Right toe to side and toe back (1-2) 1 bar
 - To side and back again (3-4) 1 bar
 - Slide close, slide close (1-2) 1 bar
 - Slide close, step to right (3-4) 1 bar
 - Repeat all 4 bars
- 2. Waltz 16 bars

*From "Good Morning" by Mr. and Mrs. Henry Ford, 1926, published by The Dearborn Publishing Co., Dearborn, Michigan. Used by Permission

B. Ace of Diamonds

Partners face each other, hands on hips

Measures 1-8: clap hands, hook right arms; polka, stamping on first step, and turning in place. Repeat, hooking left arms.

Measures 9-18: Number One goes backward with four hop steps, Number Two follows, moving forward. Repeat, Number One moving forward, Number Two backward.

Measures 19-24: polka forward

Repeat from beginning

C. Virginia Reel, or "Sir Roger de Coverley"*

Music: Pop Goes the Weazel; Metronome 116

Formation: two straight lines, six couples in each set

Do not walk through the changes, but use a light, springy, trot step, with plenty of action from the toes and ankles. The head lady and the foot gentleman begin all the movements in the first period, and are immediately followed by the head gentleman and foot lady, who execute the same change. The music and dancers start together.

Head lady and foot gentleman forward and back 4 bars

Both advance forward four steps, meet, bow, and curtsy, and return to place, each moving backward

Head gentleman and foot lady forward and back 4 bars

Head lady and foot gentleman swing with right hands 4 bars

Head lady and foot gentleman advance four steps, join right hands, "shoulder high" make one complete turn, drop hands, and return to place, moving backward.

Head gentleman and foot lady swing with right hands 4 bars

Head lady and foot gentleman swing with left hands 4 bars

Both advance and swing with left hands

Head gentleman and foot lady swing with left hands 4 bars

Head lady and foot gentleman dos a dos 4 bars

Both advance four steps, passing each other right shoulder to right shoulder; each takes one step to the right side, back to back. Without turning, turn around each other, and move backward to place.

Head gentleman and foot lady dos a dos 4 bars

Head couple down the center 8 bars

They join both hands, chase down the inside of the set, and return to place.

All reel, right arm to partner32 bars

The head couple link arms and turn once and a half around; the head lady then turns the next gentleman in line with the left arm once around; while her partner turns the next lady with his left. The head couple then turn each other around once with right arms. The head couple turns the next couple with the left, then each turns own partner with the right. This continues until the head couple has turned each dancer in line, and has reached the foot of the set. There, they turn each other half around, so that each is on his respective side. They then join both hands, chase up the center eight steps, to the head of the set. Both are now in their original places.

The idea is that the couple, in reeling down the line from one side to the other, link arms and reel each other at each crossing from side to

*From "Good Morning" by Mr. and Mrs. Henry Ford, 1926, published by The Dearborn Publishing Co., Dearborn, Michigan. Used by Permission

side. There will be five crossings, making ten contacts with the linked arms of the other dancers, and five contacts in the center of the set with one's own partner.

D. The Crow Dance by Marion Ruch

Music: When Johnny Comes Marching Home

Formation: Individual Dance

1. Hands close to shoulders, elbows bent to resemble wings

3-Left, 1-Right-1-Left

3-Right, 1-Left-1-Right 2 measures

Pivot step: weight on right foot. Touch left toe forward and with weight still on right foot push with left foot and pivot $\frac{1}{3}$ right, pushing with left foot. Repeat twice; finish, facing front. Flap wings with this step.

1-Right, 1-Left 2 measures

Repeat whole step beginning right 4 measures

2. 3 Left, hop left (moving to right with right leg extended to right) step right

Repeat whole step 3 times, flapping wings 4 measures

Pivot to left pushing with right foot 2 measures

"Scratch" left (weight on right foot), brush back with left foot 3 times, saying "caw" each time you scratch 2 measures

Pivot to right, brushing with left foot 2 measures

"Scratch" right, 3 times, saying "caw" with each scratch..... 2 measures

Repeat the whole dance

E. Sample lessons in social dancing

1. Using circle formation, let the class walk in time to music. Emphasize gentle contact with floor with ball of the foot. Still in circle formation teach fundamentals of either fox-trot or waltz, assigning the boy's part, then the girl's part. Facing each other, join hands and put the two together.

2. Illustrate proper dance position. Explain following and leading. Briefly review Lesson 1. Begin variations of waltz or fox-trot. Make up combinations. Teach each new thing in circle formation for boy and girl, then put them together.

F. Additional Rhythmic activities

1. Norwegian Mountain March13

2. Jumping Jack's Jubilee 2

3. Kerry Dance (Irish) 2

4. Additional Clog

a. Hill Billies 9

b. The Ghost Frolic 10

III. Games

A. O'Leary

Equipment: A rubber ball or tennis ball for each player

The player repeats the following words as he goes through the designated movements:

1-2-3-O'Leary, 4-5-6-O'Leary, 7-8-9-O'Leary, 10-O'Leary Postman

Bounce the ball with the palm of the hand three times to 1-2-3, and do the given movement each time to the "O'Leary"—up to: "10-O'Leary Postman;" give one bounce to 10. Do designated movement at the word "O'Leary," batting the ball with palm of the hand at the word "Post," catching the ball on "man." The ball is not caught until the last.

Exercises:

1. Swing right leg outward over ball on saying "O'Leary"
2. Swing left leg outward over ball on saying "O'Leary"
3. Swing right leg inward over ball on saying "O'Leary"
4. Swing left leg inward over ball on saying "O'Leary"
5. Grasp edge of skirt with left hand and upon saying "O'Leary" make the ball pass upward between the arm and skirt
6. Grasp edge of skirt with left hand and upon saying "O'Leary" make the ball pass through from above
7. Swing right leg outward over ball; grasp edge of skirt with left hand at same time making ball pass upward between arm and skirt upon saying "O'Leary"
8. Swing right leg outward over ball; grasp edge of skirt with left hand, at same time making ball pass through from above upon saying "O'Leary"
9. Swing right leg outward over ball; grasp right wrist with left hand, forming circle with arms, and make ball pass through from below upon saying "O'Leary"
10. Swing right leg outward over ball, grasp right wrist with left hand, forming circle with arms, and make ball drop over from above upon saying "O'Leary"
11. Keeping the balance on left foot, right leg raised forward, bounce ball 10 times, alternating to right and left to right leg. Right leg may move but not touch ground until exercise is finished. This exercise is to the words "1-O'Leary," "2-O'Leary," "3-O'Leary" and so on to "10-O'Leary Postman".
12. Keeping the balance on left foot, right leg raised forward, bounce ball 10 times, throwing right leg outward over ball at every bounce to word "O'Leary;" one extra bat to word "Post," and catch on "man"
13. Keeping the balance on right foot, left leg raised forward, bounce ball 10 times throwing left leg outward at every bounce to word "O'Leary;" one extra bat to word, "Post," and catch on "man"
14. Keeping the balance on right foot, left leg raised forward, bounce ball 10 times throwing left leg inward at every bounce to word "O'Leary;" one extra bat to word, "Post," and catch on "man"
15. To the words, "Jack, Jack, Pump the Water; Jack, Jack, Pump the Water; Jack, Jack, Pump the Water so Early in the Morning," go through the movements of bouncing ball three times—give it a stronger bat on the word, "water," making a complete turn left to the words, "So Early in the Morning;" bat on words "Early in" and "Morn," turn on "ing," and catch
16. To the words, "Jack, Jack, Pump the Water; Jack, Jack, Pump the Water; Jack, Jack, Pump the Water So Early in the Morning," go through the movements of bouncing the ball three times—give it a stronger bat on the word, "Water," making a complete turn right to the words, "So Early in the Morning;" bat on words "Early in," and "Morn," and turn on "ing" and catch
17. Starting with right foot, alternate right and left leg outward over ball. Grasp right wrist with left hand, forming circle with arms; and make ball pass through from below upon saying, "O'Leary."
18. Starting with right foot, alternate right and left leg inward over ball. Grasp right wrist with left hand, forming circle with arms; and make ball pass through from below upon saying, "O'Leary."

Directions: A girl is permitted to play as far as she can without a miss. The one who is able, in two trials, to go furthest wins the tournament.

IV. Individual Self-Testing Activities

- A. Rope jumping
- B. Jump and reach
- C. Broad jump
- D. High jump
- E. Throwing baseball for distance
- F. Throwing baseball for accuracy
- G. Throwing basketball for distance
- H. Throwing basketball for goal
- I. Running various types of races
 - 1. Short dashes
 - 2. Relays
 - 3. Potato races
 - 4. Hobble races
 - 5. Obstacle races
 - 6. Others
- J. Chinning

V. Tumbling

A. Handstand

This is done in the same way as with support; keep head up, to help in balance

B. Walking on hands

From handstand position, move forward, just as body is about to fall forward

C. Diving

When a forward roll has been mastered, it is safe fun to dive and roll. One mat may be rolled up and placed in front of a mat. Person diving stands a few steps back of roll. He runs to mat, clears the roll and lands with weight first on hands, then rolling to shoulders and completing a forward roll. After confidence has been gained, members of the class may kneel with head near mat. After one person can be easily cleared, another may kneel close to him. Some will be able to clear three to five kneeling persons.

D. Push up

Begin from a squat position. Hands are on the floor, fingers of right and left hands pointing at each other and a few inches apart. With a jump, extend legs until the body is in a straight line. Bend elbows and lower body until chest touches floor and return to original position.

E. Twister

Place a piece of paper on the side back of heel, or to left. Heels are a few inches apart. Bend knees and reach behind right leg, between legs, and around the front of the left foot. Pick up paper.

F. High jump

Jumping standards and bamboo pole or string and sawdust pit are needed. Begin with pole at a height which all can easily jump. From an angle at side take a short run to the standards. First, swing leg nearest pole over and follow in form of a hitch kick. Boys' and girls' standards may differ and should be determined by ability of the class.

G. Frog dance

Begin from squat position. Extend right leg sideways, and with a jump change to opposite position. This is similar to the bear dance position. In the frog dance emphasis must be placed on jumping in same place. Hands are on hips and body is erect.

H. Basketball shooting

From a position just to front and side of basket try five shots for the basket. Three out of five would be a good standard.

I. Target pitch

Target is a foot wide, knee height from the ground, and shoulder high. The pitcher stands in front of this rectangular target and pitches underhand at the target. Hitting any part makes the pitch a good one. Pitching distances are the same as in softball rules. Target may be suspended or painted on a wall.

J. Potato race

A starting line is marked, and chalk box is placed fifteen feet in front of line; and another box, fifteen feet in front of first box. Bean bags or wood blocks are placed in the boxes. Upon the signal, runner gets block out of first box and places it behind the line, runs to second box, gets block, comes back, touches line, and returns block to the second box. Then he gets first block, returns it to first box, and runs back to line. The individual's speed record should be recorded.

K. Hand wrestling

Face opponent with right feet next to each other. Both feet are firmly on the ground. Clasp right hand and at signal push hand to try to throw opponent off balance. If a foot is moved or body touches ground, a miss is made. Opponents may not touch each other with any other part of body.

L. Dance steps

Schottische, waltz, waltz clog, sevens, or any dance step taught in rhythm, may be used for self-testing activities

GRADE SEVEN

I. Specific Objectives

- A. To aid in the development of organic power, strength, and endurance
- B. To acquire knowledge of rules, technique, and strategy in athletic games
- C. To develop correct form in athletics, dance, and other physical-education activities
- D. To develop qualities of good sportsmanship: i. e., ability to win and lose, courtesy, loyalty, fair play, and ability to cooperate with others
- E. To develop favorable appreciations, standards, and attitudes toward fellow players and officials
- F. To develop qualities of leadership: i. e., friendliness, self-control, consideration for others, justice, judgment, initiative, and organization
- G. To prevent and remedy postural defects
- H. To develop habits of personal cleanliness
- I. To develop self-confidence, poise, and ease in physical activities
- J. To create an intelligent and healthful interest in physical activity, and provide carry-over activities for leisure time
- K. To develop safety skills involving judgment of speed, best technique, and equipment
- L. To develop in the children an appreciation of the dances of many peoples
- M. To develop in the children the ability to enjoy and create dances of their own
- N. To develop a desire for self-improvement, through a testing program

II. Rhythmic Activities

A. Divide the Ring

- 1. The call
 - a. All eight balance and all eight swing
A left allemande
And a right hand grand,
Meet your partner and
Promenade eight
Till you come straight
 - b. First couple balance and first couple swing
 - c. Down the center and divide the ring,
Lady go right and gent go left
 - d. Swing when you meet as you did before,
 - e. Down the center and a-cast off four,

- f. You swing your honey and she'll swing you,
- g. Down the center and a-cast off two
- h. Now you're home,
 All eight balance and all eight swing
 A left allemande
 And a right hand grand,
 Meet your partner and
 Promenade eight
 Till you come straight

(Second couple repeats 2 to 8, inclusive; third couple repeats 2 to 8, inclusive; fourth couple repeats 2 to 8, inclusive)

2. Description

- a. All eight balance and all eight swing
- b. Balance and swing
- c. First couple walks down the center and between the third lady and gentleman. The lady turns to the right, and the gentleman to the left; and they walk outside the set to own places (about 12 counts)
- d. First couple swings (4 or 8 counts)
- e. The same couple walks down the center again; the lady walks through the space between third and fourth couples; and, walking behind these couples, they return to place (about 8 counts)
- f. First couple swings
- g. They walk down the center again; the lady walks between the second lady and gentleman, and the gentleman walks between the fourth lady and gentleman, and both return to place (about 8 counts)

(Second, third, and fourth couples repeat in turn 2 to 8, inclusive)

3. Music: any square dance

B. Old Dan Tucker*

- 1. Formation: any number of couples join hands in a circle, with one odd man (Dan Tucker) in the center
- 2. Music: any square dance
- 3. Steps: the usual country-dance step, and gallop steps
- 4. The dance
 - a. "Balance All:" Measures 1-2
 The dancers, constituting the circle, all "balance" to Dan Tucker
 Note: The "balance" is done in either of the two following ways:
 - (1) Take a step forward with the right foot, and swing the left foot slightly forward, or
 - (2) Beginning with the right foot, take two walking steps forward and two back
 - b. "Turn left and right" (or "allemande left"): Measures 3-8
 Each man with his right hand takes the right hand of the woman on his left and turns her once around; then with left hand turns his partner once around
 - c. "Right hand to partner, and grand right and left:" Measures 9-16
 All give right hands to partners and dance "Grand right and left" or "Grand Chain," in which "Dan Tucker" joins. They continue the chain until the leader calls "Promenade all"!

*From "Good Morning" by Mr. and Mrs. Henry Ford, 1926, published by The Dearborn Publishing Co., Dearborn, Michigan. Used by Permission

d. "Promenade All:" Measures 1-8

Each man secures the woman nearest him as a partner (as the man who is left without a partner will be the next "Dan Tucker") and joining crossed hands, all couples "Promenade" with the usual country dance step (or as described in "John Brown") around the circle in the direction opposite to the hands of the clock, while the new Dan Tucker takes his place in the center.

e. "Forward and back:" Measures 9-12

All couples join hands in a circle and "Forward and Back" (four steps toward the center and four back)

f. "All Hands Around:" Measures 13-16

With hands still joined, they go around the circle in the direction of the hands on the clock, with the usual country dance step (or gallop step)

Sometimes, when a large number are dancing, or when there are more men than women present, the dance may be done with several Dan Tuckers in the center. When the dance has been continued as long as desired, it is brought to a finish with "Balance and swing partners" and "Promenade around the hall."

C. Gustaf's Skoal* (Gustaf's Health) Swedish Singing Game

Formation: Four couples form a square. Head couples stand, facing each other about six feet apart, while side couples do the same. Partners join inside hands. The boy stands on the left with free hand on hip, while the girl takes hold of her skirt.

1. Measures 1-2: The head couples start with the right foot, and advance toward each other with three steps. On the second count of the second measure, the boy bows, and the girl makes a peasant curtsy (see Figure 37, also Measures 7, 8, Trixie Polka, Page 201*)

Measures 3-4: The head couples start with the left foot, and retire with three steps, bringing the feet together on the second count of the fourth measure

Measures 5-6: Same as measures 1-2

Measures 7-8: Same as measures 3-4

Measures 1-8: The side couples repeat same figures (the above figures should be performed with great dignity)

2. Measures 9-12: The head couples skip gayly toward each other, taking two skip steps to a measure. Partners release hands, separate, and join inside hands with person opposite, the boy going to the left and the girl to the right. The new couple passes under the arch made by the joined hands of the side couples (joined hands should be held high). As soon as they have passed under the arch, they separate to the left and right, returning to their original places.

Measures 13-16: Still skipping, they clap their own hands, join hands with partners, lean well away from each other, and swing about with high skipping steps

Measures 9-16: The side couples repeat same figure

3. Words which may accompany the game

a. Gustaf's Skoal!

There is no better skoal than this!

Gustaf's Skoal!

The best old skoal there is!

*Reprinted from "Physical Training for Elementary Schools" by Lydia Clark, by permission of the publishers, Benj. H. Sanborn and Company, Boston, Mass.

b. Ho fal-de-rol jan,
 Lejan, Lijan,
 Ho fal-de-rol-jan.
 Lejan, Lijan,
 Ho fal-de-rol-jan
 Lejan, Lijan,
 Gustaf's Skoal!

D. The Phy Ed's Clog*

Music: Polly Wolly Doodle

Formation: Partners side by side

1. 2 false fives, left-right

Arms bending and stretching upward, sideward, forward, and
 down 4 measures

Repeat 4 measures

Chorus:

a. Inside hands joined, outside arm stretched sideways 3-Left, 2 hops
 left, moving to the Left

b. Repeat, beginning right

c. 3-left, 3-right, 3-left, 1-right, 1-left..... 4 measures

d. Repeat (a) beginning right

e. Repeat (a) beginning left

f. Repeat (c) 4 measures

2. 2 false fives, left-right

Hand clapping, under left leg, overhead, behind back; hands at sides

Repeat hand clapping 4 measures

Repeat whole step 4 measures

Chorus:

3. 2 false fives

Prone fall (1, squat; 2, extend legs backwards; 3, squat; 4,
 stand) 4 measures

Repeat whole step 4 measures

Chorus:

E. Additional rhythmic activities

1. Irish Lilt 2

2. Donegal Country Dance (Irish) 2

3. Three Strand May-Pole-Ka 12

4. Additional Clog

a. University High 2

b. Irish Waltz Clog 8

*From Original Character Dances by Moss crop and Shafarman. Copyright 1930, by Moss crop and Shafarman, Burgess Publishing Company, Minneapolis. Used by permission.

IV. Games

- A. Softball or baseball—Regulation rules are played
- B. Volleyball (10-30 players)

Equipment: volleyball and net

The court may be fifty by thirty feet or smaller; the net, which is about six feet above the ground, divides the court into halves

The players are divided into two teams with at least three forwards, two centers, and three backs

The object of the game is to keep the ball volleying back and forth over the net without touching the ground

The right back serves the ball from the base line with the open palm or forepart of the wrist. He has two serves if the first serve fails to go over the net. The other team tries to bat the ball back with one or both hands before it touches the ground.

The server may be assisted once by one of his players if he fails to serve the ball over the net

The server continues serving as long as he is making points

A point is scored by the serving side, only, when the receiving team fails to return the ball

If the server does not get his two serves over the net, or if they fail to return a ball from the receiving team, "Side out" is called and other team serves

When the first team serves again, "Side out" is called and the players rotate their positions; the forwards move one position to the right, the centers to the left, the backs to the right; the right back who originally served moves up to the net in left forward position

Fifteen to twenty-one points may constitute a game, or ten-minute halves may be played

V. Self-testing Activities

- A. Jumping
 - 1. Rope jumping with variations
 - 2. Jump and reach
 - 3. Standing broad jump
 - 4. Running board jump
 - 5. High jump
- B. Throwing
 - 1. Throwing baseball for distance
 - 2. Throwing baseball for accuracy
 - 3. Throwing basketball for distance
 - 4. Throwing basketball for goal
- C. Running races of various types
 - 1. Dashes
 - 2. Relays
- D. Chinning

VI. Tumbling

In these grades a thorough review of the tumbling fundamentals; forward roll, backward roll, headstand, handstand, cartwheel, is

valuable so that these skills may be applied in pyramid building. At this time there will be a greater range in weight, height, and strength, which can be used to advantage in pyramids. Tumbling may be sponsored as an extra-curricular activity. Contests, meets, and performances help keep up interest of the group. Classes are able to create original pyramids and stunts.

Squad organization is one of the most satisfactory ways of handling the class. Avoid overworking the tall or large pupils and again avoid heavy lifting.

Skills used in athletic games should be part of the self-testing program

A. Bicycling

Lie on back; raise legs until body is at right angle to the floor; move legs as in bicycling, keeping balance

B. Twin Forward Roll

Number One lies down on mat, knees flexed and feet apart; Number Two stands at head of One and grasps One's ankles while One grasps Two's ankles. Number Two gains momentum for a roll by a small spring and a forward roll between One's feet, pulling One up after him. Their positions are reversed and they continue in their roll. Tuck chin in as forward roll is taken.

C. Jump and Reach

A tape measure or yardstick may be fastened to wall so that measurements may be easily made. Jumper stands next to wall. His reach is measured, and then reach with a jump is measured. The score is the number of inches measured by the reach and jump.

D. Stomach Balance

The stronger of the pair lies on back on the mat. Feet are raised to an angle, knees bent. Number Two places feet of One on his stomach, then leans over and grasps One's hands. At a signal, number Two springs and extends arm outward, feet up and head back; One at the same time extends legs some and carries Two to a balanced position more directly above him.

E. Hitch-kick

Suspend a pan or tin cover so it may be raised or lowered. Jump in the air, feinting a kick with one leg and follow with a kick with the other leg. In the second kick, attempt to kick the pan. Use arms to gain height in kick. Height may be measured by tapes on wall near.

F. Roll Me Over

Partners stand back-to-back, arms locked. One bends forward, lifts Two off the floor. Two helps with a slight spring. One rolls Two entirely over back and releases Two as he is coming down. They now face each other.

G. Pyramids

Pyramids are a combination of tumbling activities which make an interesting formation. Simple, three-man pyramids may be presented and gradually the number participating and the complexity may increase.

Four counts help to gain formation easily:

One—get to position behind mats

Two—get to position on mats

Three—ascend to pyramid

Four—down

1. One and Three bend knee
Two ascends to standing position on legs of One and Three. He is helped by them.
2. One and Three kneel on knee nearest the wall
They catch legs of Two as he comes to a hand stand
3. Two and Three kneel on mat
Three stands on shoulder blades of Two and Four.
One and Five come to handstand position
Their feet are caught by Number Three.

VII. Dance Steps

Dance steps used in dances may first be presented as stunts: for example, schottische, parallel feet, wiggle sticks

VIII. Athletic and Track

Skills used in athletic games and track are valuable material in the self-testing program. The following are suggested:

A. Soccer and Speedball

- | | |
|-----------------|--------------|
| 1. Kicking for: | 2. Dribbling |
| a. Accuracy | 3. Blocking |
| b. Distance | 4. Passing |
| | 5. Kick up |

B. Touchball

- | | |
|------------------|-------------------|
| 1. Kicking | 4. Running |
| a. Punting | a. Open field |
| b. Drop-kicking | 5. Offensive play |
| c. Place-kicking | 6. Defensive play |
| 2. Passing | 7. Strategy |
| 3. Receiving | 8. Stances |
| a. Passes | |
| b. Kicks | |

C. Basketball

- | | |
|-------------|--------------------------|
| 1. Passing | b. Free throw |
| 2. Catching | 4. Guarding |
| 3. Shooting | 5. Bouncing or dribbling |
| a. Goal | 6. Pivoting |

D. Volleyball

- | | | |
|------------|--------------|------------|
| 1. Serving | 2. Receiving | 3. Passing |
|------------|--------------|------------|

E. Playground Ball

1. Throwing for accuracy and distance
2. Pitching
3. Batting
4. Base running

F. Tennis—serve and return

G. Track

- | | | |
|-----------|-----------|----------|
| 1. Dashes | 2. Throws | 3. Jumps |
|-----------|-----------|----------|

GRADE EIGHT**I. Specific Objectives**

- A. To aid in the development of organic power, strength, and endurance
- B. To acquire knowledge of rules, technique, and strategy in athletic games
- C. To develop correct form in athletics, dance, and other physical education activities
- D. To develop qualities of a good sportsman; i. e., ability to win and lose, courtesy, loyalty, fair play, and ability to cooperate with others
- E. To develop favorable appreciations, standards, and attitudes toward fellow players and officials
- F. To develop qualities of leadership: i. e., friendliness, self-control, consideration for others, justice, judgment, initiative, and organization
- G. To prevent and remedy postural defects
- H. To develop habits of personal cleanliness
- I. To develop self-confidence, poise, and ease in physical activities
- J. To create an intelligent and healthful interest in physical activity, and provide carry-over activities for leisure time
- K. To develop safety skills involving judgment of speed, best technique, and equipment
- L. To develop an appreciation in children of the dances of other peoples and an ability to enjoy and create dances of their own
- M. To develop a desire for self-improvement through a testing program

II. Rhythmic Activities**A. The Crested Hen***

Have the dancers form circles of three, hands joined. The dancers in each circle of three are numbered, One, Two, Three.

Step: Step-hop, raising foot quickly from floor each time

Measures 1-8: dance eight steps, starting with left foot and moving in circle to left

Measure 1: stamp with left foot

Measures 2-8: dance seven steps, starting with right foot and moving in circle to right; finish in one line, One and Three dropping hands, with Number Two standing in center holding hands of One and Three

*Health and Physical Education by A. F. Myers and O. C. Bird. Copyright, 1929, Doubleday, Doran & Co., Inc.

Measures 9-12: Number One dances four steps, crossing in front of number Two passing under arms of Numbers Two and Three on to his own place. Number Two at the same time dances four steps, turning in place in the direction in which Number One is moving.

Measures 13-16: Number Three dances four steps, crossing in front of Number Two, passing under the arms of One and Two on to his own place. Number Two dances four steps, turning in place in same direction as Number Three.

Measures 9-12: Number One repeats the steps described for Measures 9-12
Measures 13-16: Number Three repeats the steps described for Measures 13-16

B. Portland Fancy**

C. The Girl I Left Behind Me*

1. Music: The Girl I Left Behind Me

a. All eight balance and all eight swing,

A left allemande
And a right hand grand,
Meet your partner and
Promenade eight
Till you come straight.

b. First couple balance and swing, out to the right;

c. Pass right through and swing that girl behind you, on to the next;

d. Pass right through and swing that girl behind you, on to the next;

e. Pass right through and swing that girl behind you, on to the next;

f. Single promenade with the lady in the lead.

g. Turn right back on the very same track and swing that girl behind you.

h. Single promenade with the lady in the lead,

i. Turn right back on the very same track and swing that girl behind you.

j. Single promenade with the lady in the lead

k. Turn right back on the very same track and swing that girl behind you.

1. Now you're home

All eight balance and all eight swing
A left allemande
And a right hand grand,
Meet your partner and
Promenade eight
Till you come straight.

(Second couple repeats 2 to 12, inclusive; third couple repeats 2 to 12, inclusive; fourth couple repeats 2 to 12, inclusive)

2. Description

a. All eight balance and all eight swing

b. Balance and swing. First couple walks to second couple.

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*From "Old Square Dances of America" by Dunlavy and Boyd. Copyright, 1925, by the Recreation Training School of Chicago. Used by permission.

- c. First and second couples walk through, as in right and left through, until they have taken about four steps past each other. Each person turns about singly and swings the one he is facing; that is, first gentleman swings second lady and second gentleman swings first lady. First gentleman, with second lady partner, walks to the third couple.
- d. These couples walk through and turn and swing as before, and first gentleman, with third lady as a partner, walks to fourth couple
- e. These walk through and turn and swing as before, and first gentleman, with fourth lady as a partner, walks to his place
- f. All four couples make a quarter turn right and walk in a single file to the right around the circle (about 8 counts)
- g. Each gentleman turns right about, and swings the lady behind him, finishing with that lady in front of him (about 8 counts)
- h. All walk to the right in single file again (8 counts)
- i. Each gentleman turns right about and swings the lady behind him, finishing with that lady in front of him (about 8 counts)
- j. All walk to the right in single file again (about 8 counts)
- k. Each gentleman turns right about, and swings his own partner (about 8 counts). Couples should be in their own places, though this is not essential.

(Second, third and fourth couples repeat in turn 2 to 12, inclusive. Note: This is seldom danced to the tune, "The Girl I Left Behind Me," since callers find the rhythm difficult. Call 7 is sometimes given as follows: "Swing that girl, that pretty little girl, the girl you left behind you.")

D. Comin' Thru the Rye*

1. Music: Comin' Thru the Rye
2. Formation: Solo dance can be done by any number
 - a. Entrance from side, 4 skips forward, right, left, right, left 1 measure
 - 3 left, 3 right, 7 left 1 measure
 - Repeat, starting with left foot 2 measures
 - Chorus:
 - 3 left, 3 right, 7 left 1 measure
 - Repeat to right 1 measure
 - 4 flea hops, left, right, left, right; weight on right foot, raise left leg, and pull to left and reverse..... 1 measure
 - Hop right, step left, draw right to left 1 measure
 - b. 1 left, 1 right, 3 left, repeat right, left, right..... 1 measure
 - 3 left, 1 right, 1 left, repeat right 1 measure
 - Repeat all to right 2 measures
 - Chorus 4 measures
 - c. 4 chug steps forward, right, left, right, left
 - 4 skips back 2 measures
 - Repeat, starting left 2 measures
 - Chorus 4 measures
 - d. 3 left heel, toe, repeat right 1 measure
 - 3 left, 3 right, 7 left 1 measure
 - Repeat, starting right 2 measures
 - Chorus 4 measures

E. Additional rhythmic activities

1. Come Let Us Be Joyful 2
2. Harvest Frolic (Russian)13
3. Captain Jink's Square Dance 2
4. Bean Setting 2
5. Additional Clog
 - a. Eccentric tap routine No. 111
 - b. Tap routine No. 111

III. Games

IV. Tumbling

Pyramids—simple pyramids from seventh-grade work should be reviewed. More people may be used and more complicated skills and formations. Remember a pyramid's center formation is highest and ends are lowest.

*From "Clog and Character Dances" by Mossdrop and Shafarman, Burgess Publishing Company, Minneapolis, 1930. Used by permission.

A. Squash pyramid

The stronger members should be at the bottom and the lightest on top. Hands should rest on shoulders and legs on hips (never on middle of back); heads are up

On count, four, arms and legs are extended and all fall in heap. This may be done in three or six men groups or combinations of the two.

Number Four supports himself on arms of Three and Five; with other hand, Three and Five catch feet of Two and Six; One and Seven are in prone fall position

One and Two and Ten and Eleven do a shoulder stand; Five and Seven kneel; Six comes to handstand on their shoulders; Four and Eight have good posture and are sturdy, for they help Six to maintain his handstand and become the support for the headstand of Numbers Three and Nine

V. Dance Steps

Skill in dance steps is easily acquired when presented as a stunt. Choose those steps that will later be needed in dances.

VI. Athletic and Track

Suggested types of skills that may be tested

A. Soccer and Speedball

- | | |
|-------------|--------------------|
| 1. Kicking | 2. Volley |
| a. Accuracy | 3. Goalkeeper punt |
| b. Skill | 4. Trapping ball |
| | 5. Drop kick |

B. Touchball

- | | |
|------------------|-------------------|
| 1. Kicking | 4. Running |
| a. Punting | a. Open field |
| b. Drop kicking | 5. Offensive play |
| c. Place kicking | 6. Defensive play |
| 2. Passing | 7. Strategy |
| 3. Receiving | 8. Stances |
| a. Passes | |
| b. Kicks | |

C. Basketball

- | | |
|-----------------------------------|---------------------|
| 1. Passing for speed and accuracy | 5. Feinting |
| 2. Shooting | 6. Intercepting |
| 3. Pivoting | 7. Juggling (girls) |
| 4. Guarding | |

D. Volleyball

- | | | |
|------------------|-----------------|--------------------|
| 1. Placing serve | 2. Scoop return | 3. Set up of shots |
|------------------|-----------------|--------------------|

E. Playground Ball

- | | |
|-------------|------------------------------------|
| 1. Fielding | 3. Throwing—from home to all bases |
| 2. Pitching | 4. Place hitting |

F. Tennis

- | | |
|----------|------------|
| 1. Serve | 2. Returns |
|----------|------------|

G. Track

- | | | |
|-----------|-----------|----------|
| 1. Dashes | 2. Throws | 3. Jumps |
|-----------|-----------|----------|

ALCOHOL AND NARCOTICS

I. Legal Provision for Instruction in Alcohol and Narcotics

Revised Codes of Montana, 1935. Section 1054. "Course of Study in Elementary Schools instruction shall be given in the following branches physiology and hygiene, with special reference to the effect of alcoholic stimulants and narcotics on the human system " (As amended by Chapter 158, Laws of 1937.)

II. General Statement

The instruction concerning alcohol, tobacco, and other narcotics should be, in the main, a part of the general work in training for personal health habits. The keynote should be, "Teach by facts and illustration; not be exhortation."

A. Choice of material involves:

1. Recognition of the individual and community advantages resulting from sobriety
2. Correction of current fallacies as to the nature and effects of those substances in which much of this use finds excuse
3. Definite knowledge of modern scientific experiments, and observation on the subject
4. Application of this information to practical conditions of modern life in meeting individual and community problems
5. Recognition of the facts that there are industrial and transportation conditions now which make the use of alcoholic liquors very much more dangerous in their results than was the case a century ago
6. Facts taught should be graded to meet the psychological development of pupils
7. Facts may be motivated by an appeal to desire for fitness for athletic sports, efficiency in play and work, vigorous health, safety, service to others, character qualities such as self-control, kindness, sportsmanship, self-reliance, duty, reliability, truth, good workmanship, cooperation, and loyalty
8. Facts that can be correlated through arithmetic, language, history, geography, biography, drawing, and other school projects
9. Information that will find its way through the children back into the home
10. Facts that will give positive ideals around which physical facts may be taught

11. Facts that will lead young people to discover for themselves that sobriety has a value which makes it desirable to them in promoting activities or ideals in which they have an interest

III. Teaching Suggestions for Elementary Grades

The teaching of scientific temperance in all elementary grades should be positive. Emphasize the foods and drinks that children should have that are beneficial; then, after this concept is established, the reason for not wanting what is harmful.

A. Material for primary grades

Healthful drinks for children are water, milk, fresh fruit juice, and tomato juice. Ripe fruits are healthful, but fermented ripe fruit juice making cider or wine is harmful.

Drinks children should not use are tea, coffee, soft drinks containing caffeine, beer, and wine

B. Methods

Make use of simple facts taught by pictures and stories to help small children understand that in alcoholic drinks, good food material has been changed into a harmful substance. Use stories, pictures, songs, memory verses; make posters with simple drawings or cut-out pictures with accompanying legends representing positive ideals of abstinence or of using what is healthful and will build up body, mind, and character.

IV. Teaching Suggestions for Intermediate Grades

A. Material for ages nine to eleven

Continue use of concrete illustrations, either from the experience or practice of such individuals as MacArthur and Lindbergh and many athletes, or from stories of experiments with masses of individuals in games, army marching tests, shooting tests, tests of rivalry in accomplishing physical work, experiences of explorers, soldiers, sailors, marines, and airmen in hot and cold climates. Even some of the simpler laboratory experiments may be understood and their results illustrated by simple charts, posters, or objects.

Use the appeal of hero admiration: sayings of athletic leaders and of men like Franklin, Lincoln, Edison, etc., about drink and the advantages of sobriety. Such instruction will helpfully contribute to training in courage to choose what will build up instead of what will tear down. Correlate with the teaching and development of the following:

1. Sports and athletics (the law of sportsmanship; playing fair to win by strength, skill, courtesy)

Alcohol, an ingredient in fermented beer, wine, and cider often offered to children, as well as in stronger drinks like whiskey, is a poison which tends to make brain and nerves dull and less able to properly guide bodily activities. Actual experiences in football, baseball, walking, running, marching, climbing, swimming, target shooting, flying, have shown the advantages of abstinence from all kinds of alcoholic drinks in these activities. The use of alcohol impairs strength, endurance (ability to hold out to the end), and skill and causes mistakes and carelessness. Study disadvantages of the use of tobacco by athletes; know training rules about smoking.

2. Scholarship (the law of good workmanship)

The child who is a good worker tries to do the right thing in the right way, and to gain the best possible education to prepare for the time when he grows up and begins his lifework. Experience has shown that the use of alcoholic beverages decreases accuracy and reliability of performance in many kinds of work.

3. Growth (in connection with foods)

Study the changes and waste of food materials entailed by fermentation in turning sugar and starch of good fruits and grains into alcohol in various beverages; experiences of the nation during the World Wars I and II in saving food by reducing or stopping the manufacture of alcoholic drinks; healthful drinks from fruits and how to prevent fermentation (using at once or heating and sealing)

4. Health (the law of good health)

Alcohol: Characteristic action as a narcotic—checks and impairs physical and mental activities of healthy persons; dulls user's ability to judge of its effects upon himself; deceives user into thinking it does him good when it is really making him less capable and fit; how alcohol impairs ability to resist many diseases (e. g., tuberculosis) and diminishes normal powers of resistance

Tobacco: Dulling affect on ability to perceive need of fresh air and ventilation

Soothing syrups: Why they should not be given to babies

V. Teaching Suggestions for Grammar Grades

A. Material

Continue the point of view and the material of the previous grades, emphasizing the positive effect of healthful foods and drinks on the physiology and anatomy of the body

1. Handicaps to good workmanship and reliability

The good citizen tries to do the right thing in the right way, is reliable, gets the best possible education, and does good work in preparation for life; performs no slipshod or careless work with mistakes or blunders which may cause hardship or disaster to self or others, or spoil success; can be depended on

2. Tobacco

- a. Effect on growth at age when strength and vigor are needed for development; needless diversion of bodily processes required for repairing physical or mental injuries likely to be caused by tobacco
- b. Drug effect tends to require increasing use, to tie one up to it, to make it difficult to get along without it
- c. Effects on skill (experiments with baseball throwing, and target practice, etc.)
- d. Inconvenience: habit may cause needless discomfort and therefore, inefficiency, when for any reason tobacco cannot be obtained or is forbidden on account of health
- e. Needless expense at an age when most young people feel that they do not have all the money they would like to spend and should be saving and planning for more education or a fund to start in business

3. Habit-forming drugs

Do not excite curiosity about habit-forming drugs but give information that these drugs are sometimes used by unfortunate people, who have been quickly enslaved by them because of the effect of the drugs on body cells. This slavery sometimes is so great that the user breaks every rule of reliability to get the drug: i. e., honesty, carefulness with money, keeping promises, truth. Warn against accepting pills, powders, candy, or drinks from strangers or new acquaintances unknown to parents.

4. Alcohol handicaps

Changes within a century in methods of transportation (railroads, steamships, motor vehicles, airships), and in production from handwork to machinery now requires clear brains and steady nerves. A project for study of the alcohol question of today can very well be built around this idea.

- a. Nature of alcohol: A narcotic poison especially affecting brain and nerve cells. Characteristic action: To check or impair body activities; to dull the user's ability to judge of its effects upon himself; to deceive the user into thinking it does him good when it is really making him less capable and fit.

- b. Safety: Why American railroad engineers voluntarily became abstainers; why railroads require abstinence on the part of train operatives; why the millions of motor vehicles in use make imperative abstinence from alcoholic liquors on the part of their drivers; why employers prefer abstinent employees. Effects of alcohol that makes the drinker more liable to accident (in factories, mines, motor vehicles, airships) causing: clumsiness in handling delicate or high-power machinery; decreased alertness in perceiving or detecting danger; decreased quickness and accuracy in deciding how to meet it; more recklessness in taking chances. Effects on the sense of balance needed in aviation; longer time required by drinkers in recovering from accidents. Simple accounts of experiments in proving these facts should be studied.
- c. Efficiency: Abstinence as an advantage to the worker; stories of experimental tests showing that alcohol compels a greater expenditure of energy in doing a given piece of work ("makes hard work harder"), fatigue appears sooner. Why good food and hot or nourishing drinks are better than beer or wine for the tired worker. Effects of alcohol on resistance to heat and cold; better means than alcoholic liquors for meeting exposure to extremes of temperature. Efficiency and power to work safely may be impaired for several hours after taking alcohol because the blood continues to carry it to brain and nerve cells until the body has entirely disposed of it.
- d. Health: The effects of alcohol already mentioned are examples of its poisoning body cells so that they do not work accurately or perhaps not at all. The drunken man is sick, poisoned for some hours by the amount of alcohol he has taken. It is possible for one to take enough to cause death. But one does not have to get drunk to be poisoned by alcohol to a degree seriously interfering with safety and work.

The average health of abstainers is better than that of drinkers. The average health of children is better in non-drinking homes where money, instead of being spent for liquor, is spent for good food, a comfortable home, and care of the children and their mother.

- e. Self-control and kindness: The good citizen controls himself (herself) in speech, temper, actions; and is kind. The depressant action of alcohol on brain and nerve cells results in impaired self-control. This often leads to immoderate and destructive use of alcoholic liquors; causes impatience or irritability; sometimes causes of-

fenses against good order such as assaults or other violent acts; sometimes results in cruelty on the part of persons who, when they do not use alcohol, are naturally kind and considerate.

Everyone has a right to safety and protection against acts of people made dangerous or irresponsible by narcotic poisons. Why do all nations have laws intended to control or reduce the narcotic traffic? Study safety, efficiency, and health reasons for laws of the United States prohibiting the traffic in narcotics.

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*Acknowledgment is gratefully made to Mrs. Maggie Smith Hathaway, a former County Superintendent of Schools of Lewis and Clark County; First Montana Woman Legislator in Montana; State Director of Child Welfare in Montana, 1925-1937; Secretary of the State Temperance Commission, January 7, to July 1, 1941, for her assistance in compiling this bibliography

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Allied Youth Monthly. Allied Youth, National Education Association Building, 1201 16th Street, N. W., Washington, D. C. Price \$1.00 per year. (The Allied Youth has a room in the National Educational Association Building. This magazine is issued every month except August. It is for young persons, and it reports news; gives program suggestions; tells of alcohol trends. This publication is one of the most authoritative and interesting of America's alcohol education periodicals for youth)

The Voice. Board of Temperance, 100 Maryland Avenue, National Education Building, Washington, D. C. Price \$1.00 per year (The Voice is a monthly, up-to-date, scientific, and thought-provoking publication)

Quarterly Journal of Studies on Alcohol. Yale University, New Haven, Connecticut

MENTAL HEALTH

I. General Statement

Success and happiness in life depend not only on a healthy body, but also on a healthy mind. Good mental health habits must be learned. During school years which bring to many children the first important experiences of group life, they should learn self-control, the virtues of service and cooperation and of being, automatically, followers as well as leaders. They should form the habits of obedience, cheerfulness, politeness, courage and self-respect. The teacher should be on the alert to seize upon the school situations, activity, lesson or experience that are best suited to develop and re-enforce the above mental habits and many others, such as straightforwardness and clean-mindedness. The successful man or woman, boy or girl, is the one who early learned the value of a healthy mind as well as a healthy body.

A. Detailed list of mental health habits for the boy or girl who wants to form a healthy personality:

1. The healthy personality

Mental and emotional health: The healthy person takes a keen, active interest in friends, games, hobbies, or in all; is curious concerning the world about him; persists in his work; concentrates on his work and pays attention to the task at hand; keeps his project in mind until it is completed; completes his task successfully; does his work promptly; tells the truth; enjoys play; enjoys work; meets disappointments bravely; remains good-natured under trying circumstances; enjoys humorous situations; forgets grudges quickly; is not afraid of animals, storms, or the dark, etc.

2. Social relationships: The healthy child is friendly towards other children; is interested in making other people happy; is courteous; uses the common courteous phrases correctly and naturally, such as "thank you," "please," "sir," "excuse me," etc.; refrains from quarreling; is willing to share his possessions; refrains from taking what belongs to others; gives back lost things to owners; shows kindness to those who are weaker or younger and does not tease or bully; shows kindness toward animals; obeys the rules of the group; waits for his turn; is willing to take part in group activities; settles difficulties without appealing to the teacher; refrains from interrupting others needlessly; keeps hands off other people

3. Work: The healthy child does his work cheerfully; keeps work material clean and neat; keeps desk, shelves, lockers in order; helps playmates, parents, and teachers in their tasks whenever he can

B. Some detailed suggestions for procedure

1. Discussions

Permit the members of the class to discuss different acts which at first were practiced, but later became habits. Discuss the ways in which children should form habits of obedience, cheerfulness, politeness, courage, and respect. Have the members of the class watch for demonstrations of the application of these habits by others and by themselves. Good mental habits are a rest to the nervous system. Have the pupils discuss the value of trying to form good mental health habits in school; on the playground; at home; on the streets, and in public places

2. Correlation

- a. Observe when reading of great men and women their good mental health habits
- b. Write a list of the good mental habits you have acquired. Explain why they are desirable.

3. Activities

- a. By actual daily practice, endeavor to refuse to become discouraged by your failures; avoid blaming others; refuse to bear grudges against anyone; conquer worry; do one thing at a time; seek inspiring influences; and learn to rely on your self
- b. Utilize actual schoolroom situations and experiences

II. Bibliography for Mental Health

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The State Board of Health, care of the State Capitol, Helena, Montana, has an excellent library of books and pamphlets, and films on practically every phase of Health Education. By writing directly to the State Board of Health, one may obtain the loan of books and pamphlets. The State Board is anxious to be of service in this way to the schools of the State.

ELEMENTARY SCIENCE

I. Introduction

This course of study in elementary science is written to help pupils of the elementary school acquire a picture of the world in which they live. A well-planned science program offers many opportunities to children to make their lives healthier and happier by a study of natural phenomena about them. It is necessary that an attempt be made to organize and arrange the experiences which children will have in the field of science, in order to make these experiences contribute to definite knowledge and also to avoid excessive repetition which would become boresome to the children and defeat the purpose of the study of science. Montana children are particularly fortunate in having a great variety of land forms, animal and plant life, and seasonal changes to stimulate their interest in science.

II. Objectives

- A. To help the child develop an understanding of the physical environment in which he lives
- B. To promote a scientific attitude: the desire to investigate before forming opinions
- C. To give an appreciation of the pleasure that is to be found in studying natural sciences, and in observing the beauties of nature

III. Texts

The field of science is so broad that the child should not be limited to one text to guide his explorations. A bibliography of standard and recent books is included in this course of study. The texts in use in Montana at the time this course of study goes to press are:

- A. Frasier, G. W., and others. *How and Why Discoveries*, Grades One to Six. L. W. Singer Company, Syracuse, New York, 1940.
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IV. Procedure and Activities

Elementary science is informal, and consists of worthwhile experiences, many of which are introduced by the child. There are three main criteria by which the subject matter to be studied should be gauged. First, it should be seasonal. Second, it should correlate with the general program of the school, and particularly with the subjects being studied in the Social Science Units. Third, it should be within the comprehension and, if possible, within the first-hand experience of the child.

An attempt is made in this course to give helpful suggestions to the teacher which will aid her in carrying out an interesting school science program. The material is presented in two ways: First, brief outlines of suggested subjects for study are listed under the headings of different fields of science and also of the seasons in which certain phases may best be studied. Second, a month-by-month chart has been prepared for each grade, not with the idea of suggesting to the teacher that the activities listed are the only ones which should be studied but rather with the plan of giving the teacher suggested subjects to which pupils can be introduced. The chart is also useful in that it suggests some organization and cumulation of the child's information, and it serves as a device for checking outcomes and evaluating the science program.

A. Collections

Every school should have a museum corner or room where worthwhile collections are kept. Collecting is an important instinct in children and should be carefully directed. Bird's eggs and certain flowers should not be collected. The following is a suggestive list of materials that children might collect:

1. Rocks and minerals
2. Insects
3. Leaves
4. Samples of soil
5. Kinds of wood—twig collection
6. Fossils
7. Galls
8. Lichens
9. Seeds—including weed seeds
10. Pressed leaves of plants
11. Old birds' nests
12. Life histories of common insects
13. Pictures and snapshots of wild life in the community
14. Butterflies and moths

B. Excursions

The most valuable form of observation is in the natural setting, and it is for this reason that planned field trips should be taken. Nature clubs and bird clubs are becoming an important factor in nature education. Every trip should have a definite, planned objective; preferably it should be originated by the children, and it should be discussed before they start on the trip.

C. Equipment

A certain minimum of equipment will help the teacher carry out the course in science

1. A table
2. Shelves
3. Boxes, cans with lids, glass jars, and other containers
4. Aquarium—terrarium
5. Plant boxes and flower pots
6. Animal cages
7. Pictures of birds and animals
8. Pictures of flowers and trees
9. Maps and pictures of the earth and sky
10. Magnifying glasses
11. Projection lantern
12. Film strips
13. Slides
14. Weather maps and weather reports
15. Thermometer and barometer
16. Bulletins and books
17. Magnet
18. Compass

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List of Montana Birds

- | | |
|--------------------------------|-----------------------------|
| Avocet, American | Hawk, American Rough-legged |
| Bittern, American | Cooper |
| Blackbird, Brewer | Desert Sparrow |
| Red-winged | Marsh |
| Yellow-headed | Sharp-shinned |
| Bluebird, Eastern | Western Red-tailed |
| Mountain | Heron, Blue |
| Western | Gray |
| Bobolink | Hummingbird, Calliope |
| Bobwhite | Ruby-throated |
| Brant, Black | Rufous |
| Buffle-head | Jay, Black-headed |
| Bunting, Indigo | Canada |
| Bunting, Lark | Rocky Mountain |
| Butterball | Steller |
| Catbird | Junco, Pink-sided |
| Chat, Long-tailed | Shufeldt |
| Chickadee, Long-tailed | Killdeer |
| Mountain | Kingbird |
| Coot, American | Kingbird, Arkansas |
| Cowbird | Kingfisher, Belted |
| Crane, Sandhill | Kinglet, Golden-crowned |
| Creeper, Rocky Mountain | Ruby-crowned |
| Crossbill, American Red | Lark, Desert Horned |
| Crow, American | Loon, Red-throated |
| Cuckoo, Black-billed | White-throated |
| Curlew, Long-billed | Magpie, American |
| Dipper, American | Martin, Purple |
| Dove, Mourning | Meadowlark, Western |
| Duck, Canvas-back | Merganser, American |
| Harlequin | Hooded |
| Mallard | Nighthawk, Western |
| Pintail | Nutcracker, Clarke |
| Wood | Nuthatch, Red-breasted |
| Eagle, Bald | Slender-billed |
| Golden | Oriole, Baltimore |
| Finch, Cassin Purple | Bullock |
| Flicker, Red-shafted | Orchard |
| Yellow-shafted | Osprey, American |
| Flycatcher, Olive-sided | Ouzel, Water |
| Traill | Owl, American Long-eared |
| Wright | Great Snowy |
| Golden-eye, American | Hawk |
| Goldfinch, American | Pigmy |
| Goose, Canada | Rocky Mountain Screech |
| Grackle, Purple | Saw-whet |
| Grebe, American Eared | Western Horned |
| Pied-billed | Pewee, Western Wood |
| Grosbeak, Black-headed | Phalarope, Northern |
| Pine | Rail, Sora |
| Rose-breasted | Virginia |
| Western Evening | Raven, American |
| Grouse, Columbian Sharp-tailed | Redstart, American |
| Franklin | Robin, Western |
| Gray Ruffed | Sanderling |
| Pinnated | Sandpiper, Baird |
| Richardson | Bartramian |
| Gull, Ring-billed | Solitary |
| Western | Spotted |

Sapsucker, Red-naped	Towhee, Arctic
Yellow-bellied	Vireo, Red-eyed
Shrike, Northern	Warbling
Siskin, Pine	Warbler, Audubon
Snipe, Wilson	Macgillivray
Solitaire, Townsend	Townsend
Sparrow, English	Western Yellow-throat
Lincoln	Yellow
Mountain Song	Waxwing, Bohemian
Slate-colored	Cedar
Swamp	Woodcock
Tree	Woodpecker, Alpine Three-toed
Western Chipping	Arctic Three-toed
Western Grasshopper	Batchelder
Western Vesper	Cabanis
Swallow, Bank	Downy
Barn	Lewis
Cliff	Pileated
Tree	Wren, Rock
Swan	Western House
Tanager, Louisiana	Winter
Scarlet	Yellow-legs
Teal-Green-winged	Yellow-legs, Greater
Tern, Forster	
Thrush, Olive-backed	
Willow	
Wood	

List of Montana Flowers

Anemone	Kinnikinnick
Arnica	Larkspur
Arrowhead	Lily-of-the-valley
Aster	Loco Weed
Balsam Root	Lupine
Bear Grass	Mallow, Rose
Beardtongue	Mariposa Lily
Bedstraw	Meadow Rue
Bee Flower	Milkweed
Bindweed	Miner's Lettuce
Bitter Root	Moccasin Flower
Bluebell	Monkey Flower
Blue Camas	Mullen
Blue-eyed Grass	Mustard
Bog Orchid	Old-man's-whiskers
Buckbrush	Onion, Wild
Buckwheat, Wild	Oregon Grape
Bunchberry	Parsley, Wild
Buttercup	Pasque Flower
Butterfly Weed	Prickly Pear
Chickweed	Peppergrass
Chokecherry	Pigweed
Clematis	Pink Fairies
Cockle	Plantain
Columbine	Quack Grass
Cow-parsnip	Queencup
Currant, Wild	Rose, Wild
Cut-leaf Nightshade	Scorpionweed
Dandelion	Serviceberry
Death Camas	Shepherd's-purse
Dock	Shinleaf
Dodder	Shootingstar
Dogtooth Violet	Silverweed
Dogwood	Skunk Cabbage
Elderberry	Snapdragon
Everlasting	Spikenard, Wild
Fairy Bells	Starflower
Fanweed	St. John's-wort
Fireweed	Strawberry, Wild
Flat-top Meadowsweet	Sunflower
Foxtail	Syringa
Geranium, Wild	Thimbleberry
Giant Hyssop	Thistle
Golden Rod	Thistle, Russian
Gooseberry, Wild	Trillium
Harebell	Twin Flower
Hawthorn	Twisted Stalk
Heal-all	Valerian
Honeysuckle, Orange	Violet
Horsemint	Yarrow
Hyacinth, Wild	Yellow Bell
Indian Paint Brush	Yucca
Iris	
Jacob's Ladder	

GRADES ONE, TWO, AND THREE**I. Suggested Subjects (By Seasons)****A. Animals (mammals)****1. To be studied in the fall****a. Pets**

- (1) Proper food and shelter
- (2) Regular feeding time
- (3) Cleanliness
- (4) Proper handling
- (5) Habits and usefulness

b. Domestic animals

- (1) Their food and shelter
- (2) Their preparations for winter
- (3) Those that give us food
- (4) Those that give us clothing
- (5) Those that work for us

c. Wild animals in the community: rabbit, squirrel, mice, gopher, bear, skunk, badger, beaver, coyote, others

- (1) Their food and homes—those that live underground
- (2) Their means of protection
- (3) Their preparations for winter
 - (a) Winter food
 - (b) Warm homes
- (4) Their habits
 - (a) Change of color
 - (b) Growth of heavier fur

2. To be studied in winter**a. Pets—their care in winter****b. Domestic animals**

- (1) Feed and shelter
- (2) Cows—value of milk as a food

c. Wild animals

- (1) Winter homes and food
- (2) Tracks in the snow
- (3) Prehistoric animals
- (4) Bats, moles, and other unusual animals

3. To be studied in the spring**a. Pets—relation to wild animals**

- b. Domestic animals
 - (1) Care of young
 - (2) Shedding of winter coats
 - (3) Behavior of young animals
- c. Wild animals
 - (1) Homes for the young
 - (2) In the circus
- B. Fish, frogs, toads, snakes, snails, lizards, and turtles
 - 1. To be studied in the fall
 - a. Their food and shelter
 - b. Life in the garden and in the pond
 - c. Manner of eating
 - d. Getting ready for winter
 - e. Hibernation and winter homes
 - 2. To be studied in the winter
 - a. Study goldfish and snails in the aquarium; food, and care
 - b. Study how fish live
 - 3. Activities for spring
 - a. Take a trip to a pond and gather frogs' eggs
 - b. Observe the development of the frog
 - c. Study how turtles live
 - d. Get snails for the aquarium
- C. Insects
 - 1. To be studied in the fall
 - a. Moths—learn life cycle of a moth
 - b. Caterpillars
 - (1) Collect
 - (2) Provide a box for them
 - (3) Feed them leaves
 - (4) Watch them spin
 - c. Cocoons—collect and provide a box for them
 - d. Grasshoppers, spiders, and crickets
 - (1) Study their habits
 - (2) Make a collection
 - e. Bees
 - f. Water bugs
 - 2. To be studied in the winter
 - a. What becomes of flies and insects during winter
 - b. Proper temperature and moisture for keeping cocoons
 - c. Spiders

3. To be studied in the spring
 - a. Make an ant terrarium (use a jar)
 - b. Study the ants
 - c. Observe cocoons to see if moths come out
 - d. Study social life of ants and wasps and bees
 - e. Study insects as they come out in the spring

D. Trees and Shrubs

1. To be studied in the fall
 - a. Learn to identify trees in your community
 - b. Learn names of the parts of a tree
 - c. Learn how and why trees get ready for winter
 - d. Collect leaves—mount and label
2. To be studied in the winter
 - a. Study the evergreen trees
 - b. Learn the usefulness of trees
 - c. Study trees and shrubs in winter (bark, branches, root, trunk)
3. Activities for spring
 - a. Observe buds on trees
 - b. Observe pussy willows
 - c. Take a field trip to observe signs of spring
 - d. Plant a tree on Arbor Day
 - e. Care of a tree planted on Arbor Day and watch it grow

E. Plants and flowers

1. To be studied in the fall
 - a. Learn the names and habits of the wild flowers in the community
 - b. Learn the names and habits of common garden flowers
 - c. Learn what happens to flowers in the autumn
 - d. Gather flower seeds and learn how they are carried
 - e. Study bulbs
 - f. Learn the parts of plants
 - g. Learn how plants get their food
 - h. Make a collection of pressed flowers, and label correctly
2. To be studied in the winter
 - a. Observe the growth of bulbs
 - b. Plant seed and watch it sprout and grow
 - c. Care of potted plants and window boxes
3. To be studied in the spring
 - a. Watch for the first wild flowers; where they grow

- b. Take field trips to study wild flowers
- c. Continue flower collection
- d. Study spring garden flowers
- e. Learn not to destroy wild flowers

F. Birds

- 1. To be studied in the fall
 - a. Watch the birds around the schoolyard
 - b. Be able to describe and name them
 - c. Learn to recognize their calls and songs
 - d. Study the migration of birds
 - e. Learn the usefulness of birds
- 2. To be studied in the winter
 - a. Be able to recognize the birds that spend the winters in Montana
 - b. How birds get their food
 - c. Make a feeding platform and feed the birds
 - d. How birds are sheltered
 - e. Study the domestic birds
 - f. Study old birds' nests
- 3. To be studied in the spring
 - a. Watch for the return of the birds
 - b. Make a bird calendar for the birds that return
 - c. Make birdhouses
 - d. Learn how different birds build their nests in different places or locations
 - e. Observe a robin build a nest
 - f. Put out strings for building material
 - g. Study the robin's family life

G. Soil, water, and rocks

- 1. To be studied in the fall
 - a. Visit a neighborhood garden
 - b. Talk about the soil, plants, and whatever else was observed
 - c. Learn how soil is made; make soil from a soft rock
 - d. Get samples of different kinds of soil
 - e. Make collection of different kinds of rocks and label correctly
 - f. What makes it rain?
 - g. How are rivers made?
- 2. To be studied in the winter
 - a. Snow—what it is—and snow crystals; observe water turn to ice

- b. Cut paper snowflakes
 - c. The usefulness of snow
 - d. Continue study and collections of rocks
 - e. How does water get into the air? Observe water evaporate.
 - f. Boil water to make steam
 - g. Demonstrate that solids do not evaporate
3. To be studied in the spring
- a. Observe running water after a thaw
 - b. What happens to the fine soil; to pebbles; and to rocks
 - c. Continue study of rocks
- H. Sky, weather, seasons, wind
1. To be studied in the fall
- a. What is the sun?
 - (1) Its journey across the sky
 - (2) Color changes at different times of day
 - (3) Its light and heat
 - b. Observe signs of fall as the days grow shorter and cooler
 - c. Study shadows
 - d. Study about seasons. What causes seasons?
 - e. Observe the different clouds
 - f. Keep a weather calendar
2. To be studied in the winter
- a. Observe frost out-of-doors and on the windows. What is frost and what causes it?
 - b. Keep a weather calendar
 - c. Locate the Big Dipper
 - d. What are the stars?
 - e. What is the moon like?
 - f. Illustrate air pressure
 - g. Demonstrate use of siphon
3. To be studied in the spring
- a. Warmer temperature
 - b. Longer days
 - c. April showers; their value
 - d. Rainbows
 - e. Dew—what is it?
 - f. March winds—the work of the wind
 - g. Experiment with kites and airplanes

Outline of the Course in Elementary School Science

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ELEMENTARY SCIENCE

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More than enough material has been presented for each year so that the course could be flexible enough to meet the varying conditions throughout the State due to difference in time allotment, size of classes, grades in the school, materials accessible in the community and interest and ability of the pupils.

GRADE ONE

Earth, sky, weather	Trees and shrubs	Plants	Gardens, soils, water, rocks	Mammals	Birds	Insects	Fish, frogs, snakes	Mechanics, toys inventions, etc.
Beautiful coloring of the sky in the morning, during the day, at sunset; sky directions; where the sun rises, sets, where it is at noon	Select some one tree for special study, note the size; how the branches spread; how it makes shade; collect leaves	Study the habits of the goldenrod. See if you can recognize three wild and three tame autumn flowers	Discuss seeds as a necessity for next year's garden; how seeds are scattered	How man prepares for winter. Food supply, fuel; shelter and clothing	Watch the birds at home and around the schoolyard; which ones are in flocks	To become acquainted with the life cycle of a cecropia moth; watch for caterpillars	Goldfish, recognition and activities	Elementary conception of speed in terms of revolution; spinning of a top; wheels of slow and fast moving vehicles
Signs of autumn temperature, shortening days; make a weather calendar; shadows; observe the moon	Note the coloration of the tree. How do trees get ready for winter?	Study the habits of the brown-eyed Susan; make a collection of seeds; put names below them. Plant bulbs for autumn and winter.	Fall festival exhibit; collection of seeds, fruits and vegetables from common wild and cultivated plants	Preparation of animals for winter food supply; shelter	Look for pigeons; what do they do; where they live; what do they eat	Make a caterpillar box; capture several caterpillars; supply food; watch them spin cocoons	Lizard, recognition, where to find it, abundance, how protected	Elementary conception of movements of a swing; where does it stop; why?
Characteristics of the autumn season; continue the study of shadows; keep a weather record which will show days of month of sunshine, clouds, wind, rain, snow, frost	Observe the tree when all the leaves are fallen off, notice the trunk, branches, twigs; feel the bark; make blue-prints of leaves	Distinguish between daffodil and narcissus bulbs planted. Observe, water them; watch what happens	How nature and man protect some plants from the cold winter. Continue to observe different kinds of pebbles and stones. Bring to the schoolroom different kinds of soil; feel them; notice the color. Pour water on each kind; notice what happens.	Recognition of the squirrel and his activities	Recognition of two common birds of fall; activities, song, abundance and where to see them	Find other cocoons; put them into the box, keep the box in a neither hot nor cold place during the winter	Provide an aquarium (see general suggestions); keep it clean	Evaporation; to know there is water in the air
Observe the sky, length of days; wind, gentle or strong; precipitation, rain, sleet, snow; observe moon, conspicuous stars	Study the evergreen in anticipation of Christmas	Continue observation of the growth of the bulbs through December, January and February	Discover that animals care for their families. Discuss animals seen at the circus; bring pictures of them.	Recognition of two birds of winter, activities, song, abundance; where to find them	Draw pictures of cocoons separately and on branches	Where do snakes go in winter?	Necessity of air for fire; a rug or blanket will put out a fire. Why?	

January	Snow crystals, how they look; frost pictures; how they look; observe the full moon, the new moon. Find the Big Dipper; look for tracks.	Observe winter buds; do all trees have them; other evergreens, at least three, both broad and narrow leaves; where they grow?	Discuss its appearance as to root, stem, leaves and flowers. Make a bulb booklet; picture it; before it was planted; as it looks in six weeks; in three months. Discuss the value of plants to the children themselves.	Make mud pies or marbles of the different kinds of soil; dry them in the sun or in Mother's oven	Model from clay or cut from cardboard the circus animals; make animal cages	Help for birds in winter; a bird Christmas tree; help for birds in winter; water, crumbs and suet	What becomes of the flies and insects in winter time?	Hibernation; cold-blooded animals	Wire doll houses and toy houses for electric lights
February	Watch your shadow; when is it in front of you; behind you; the longest; the shortest; notice the colors of the brightest stars; find the Big Dipper; the Little Dipper	Have a Christmas tree for birds; how is the evergreen like the trees studied in autumn. Cut free-hand evergreen trees for borders		See if you can find a stone that is easily broken; feel the rough edges; rub them together until they are smooth	Name all the pets at home; what are the activities of each. Special study of the cat; its habits; wild relatives	Study the domestic fowl, hen or duck; its activities, food, value; what man can do for its comfort	If cocoons are kept in the warm school-room, sprinkle them twice a week with cold water	Toads and frogs eggs easily kept in school; keep them in pond water; watch them hatch out	Swings, pendulum, falling objects, tumbling down, sliding down hill, illustrate gravity
March	Signs of spring in the sky; length of days; watch the work of the wind on a windy March day	Observe the buds on the trees; experiment with budding twigs; put them in sunny windows; in dark places	Plant some seeds in pots in the schoolroom; watch what happens. Watch for the first wild flowers; where do they grow?	Observe the running water in the gutter after a thaw or rain. What happens to the fine soil; to the bigger pebbles and stones	The cow as a source of milk supply; care of milk; its uses; why important in diet	Returning birds; their activities; call, recognition of two or three	Watch the cocoons carefully to see the moths and butterflies come out. Do not tell children what to expect	To become acquainted with toad as farmer's friend. Recognition; abundance; habitat	Bring mechanical toys to school; discover what makes them work
April	Seize the first opportunity to observe a shower; notice how it comes quickly or slowly; tell what happens	Notice the position of the buds; the size; watch to see if roots develop; observe the pussy willows	Plant a school garden; know the names of some of the common wild and tame spring flowers	Plant some seeds in different kinds of soil; watch what happens. Plant a home garden	Study habits of the rabbit	Observation of nest building; family life of a familiar bird such as the robin	Model the body of the moth in clay; draw and cut wings of colored paper; fasten to body of clay	Frog: frog tadpoles, recognition, activities, habitat	Bring a Dover egg beater to school; study the cog wheels; what can they do?
May	Continue the work of calendar study; sunrise; sunsets; length of days; name the seasons	Notice flower buds and leaf buds; make a collection of twigs and look for the buds. Observe the trees	Sort flowers according to color; size; odor; make booklets; press specimens; arrange a bouquet of spring flowers artistically	How to plant a seed; how to plant a bulb; plant a home garden	Visit a farm home; notice all the animals; find out the favorite food of each and how he eats his food	Kinds of birds seen in trees; vines; lawns, flowers, bushes, fields, streets, around lakes and rivers	Discuss the stages from the eggs to the moth or butterfly	Have tadpoles in aquarium to observe developments	Drop a cork, leaves, a log, a stone into the water, what happens? Why?

The teacher should endeavor to lead each pupil to voluntarily ask to carry on some school science activity during the summer months. This activity preferably should lead to observations and investigations out-of-doors. The activity should be active, attractive and worthwhile, one that will carry on and sustain the interest already developed. These activities will also afford worthy, wholesome and profitable use of leisure time. Some such activity is suggested: See if the child can make a pet of some wild animal or bird.

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GRADE TWO

Earth, sky, weather	Trees and shrubs	Plants	Gardens, soils, water, rocks	Mammals	Birds	Insects	Fish, frogs, snakes	Mechanics, toys, inventions, etc.
September	Build on to what has been learned in first grade	To learn about seeds and how they are carried; gather seeds and find out how they are carried	Discuss summer garden experiences; special study of pumpkin or squash; the seeds	To become acquainted with some of the wild animals as the squirrel, bear, beaver, skunk	Recognize the birds common to the locality; list birds seen during vacation; where noticed	Collect a number of insect materials in the fall, such as galls, cocoons, caterpillars, grasshoppers	Continue the study of the toad and frog as the farmer's friend	Study of wheels; observe wheels must turn on axle to produce motion
October	Look for signs of autumn in length of days, shadows, movements of clouds	Study those that can fly; those that steal a ride; those that man must plant	In which kind of soil did the vegetables grow best? How was garden watered?	If squirrel be studied: form, size, shape and position of tail, forefeet, color, food, habits, industry, usefulness	Continue the work of the first grade, noting calls, habits, food, nests, report observations often	Study crickets and grasshoppers; observe the crickets' habits		Why must we have sleds to coast on ice? Why not a vehicle on wheels?
November	Effect of the temperature on kind of clothing; the thermometer; air	Study bulbs; learn how to plant the different kinds; plant two bulbs	How the soil was made; the effect of the sun, rains, wind	Read and tell stories about the squirrel; take field trip to see one; model squirrel (or other animals) in clay	Study the turkey; migration of birds	Observe the grasshoppers' habits; observe the difference between the two, in various ways	How the snake prepares for winter	Continue to study coqs; the Dover egg beater
December	Value of the sun, moon, and stars to plants, animals, people	Learn about the parts of a plant	How did we get the rocks?	How animals prepare for winter; those that build homes; stay in the ground; take naps; store food; hunt for prey	Make a bird calendar from observation made during the fall	Study the Great American moths		Illustrate electricity by rubber balls, bands, bow and arrow

January	Keep a weather chart; a temperature record; predict the weather from kinds of clouds	Develop a conception of the usefulness of trees	Watch plants grow; roots, stem, leaves, buds	How did we get the rivers?	Observe animals' tracks; detect animal by his tracks; speed, direction; snow crystals; winter landscapes	Study the English Sparrow. Help for birds in winter: seed pans, etc.	Study how insects survive the winter	Continue studying the animal life of the aquarium	Illustrate transfer of energy by ball and bat, marbles, hoops
February	Observe tracks; continue study of shadows; snow crystals with star; the Dippers	Collect specimens of different kinds of common woods; name and label them	Which plants does man use? Which parts?	To find out how to plant garden vegetables and flowers common to the locality	Learn more about dogs	Take imaginary migration trips, getting ready for the journey and the journey, destination	See if you can find a spider in the barn or granary		Illustrate air pressure (inverted glass of water and paper)
March	Find other star groups; make a moon calendar; observe snow storms; March winds	Collect specimens of different kinds of bark; usefulness of bark	What storehouses have plants for winter? Germinate some seeds	Plant seeds in egg shells; transplant later; keep records of time seeds take to come up	Learn more about cats and their wild relations	Study the meadow lark; his family life	If you find a spider put him in a glass jar with perforated cover; put in some things; observe him spin web	Hunt for frogs' and toads' eggs	Illustrate air pressure; siphon
April	Observe the rain storms; notice the work of the water as it runs down the gutters	Take field trip to see the awakening of spring; signs in the trees and shrubs	Spring garden flowers, characteristics of at least three new ones common to the vicinity	Observe the growth of the plants for a few weeks. Have each child plant a few . . .	Study about a rabbit family; recognition; how to care for them	Make bird houses	Observe the moths and butterflies from the cocoons kept since the autumn	Continue the study of life of tadpoles, frogs and toads	Continue study of toys and gravity begun in first grade
May	Experiment with wind; watch balloons float; soap bubbles, milkweed, feather; why do they float? Observe work of wind	Opening of buds; recognition of common varieties of trees and shrubs	Spring wild flowers, at least three varieties; press and mount them	. . . . . radishes, beets, beans, popcorn, asters. Keep a record in a nature book	Young animals: wild and domestic animals; different parental care of young	Study the family life of the robin	Observe insects found in the spring, compare with those of autumn	Learn to recognize the poisonous and non-poisonous varieties of snakes	Study of balance by means of seesaw; scales

Summer

The teacher should endeavor to lead each pupil to voluntarily ask to carry on some school science activity during the summer months. This activity preferably should lead to observations and investigations out-of-doors. The activity should be active, attractive and worthwhile, one that will carry on and sustain the interest already developed. These activities will also afford worthy, wholesome and profitable use of leisure time. Some such activity is suggested: Watch any wild animal or bird. Feed him. Watch him eat. Find out what he does with part of his food. Keep a diary of one sentence per week of something new you observed about him.

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GRADE THREE

September	Earth, sky, weather Continue work of previous grades; observe and record autumnal changes in weather; shadows; length of days	Trees and shrubs Select two or three varieties of trees to watch their changes during the year; study fall flowering shrubs	Plants Continue the study of fall wild flowers, at least four new varieties; continue the study of cultivated fall flowers at least four new varieties	Gardens, soils, water, rocks How do you get a garden ready for winter; care of perennials	Mammals Kinds of animals that used to live on the earth; how do we know this?	Birds A bird trip; learn how to find the birds; move slowly, quietly; recognize calls or other distinctive sounds	Insects Continue the study of cycle of life of the moth and butterfly; the grasshopper,	Fish, frogs, snakes Frog: review topics of previous grades; voice, habits, appearance, parts,	Mechanics, toys, inventions, etc. Continue the work of the previous grades
October	How to read a thermometer; make temperature records	Recognition of at least four new varieties of trees; where they grow, size, shape, bark, leaves	Know the locality, recognition of whole plant, where found, duration of plant, stem, leaves, flowers, plant bulbs	Fall exhibit of flowers and vegetables	Extinct animals; cause; what are fossils? Where found?	Make a chart of birds seen during summer; describe them; try to get colored pictures of birds of your locality; crow	. . . . . the cricket; the spider; if possible study the bee	. . . . . adaptations, food, eggs, immature stages	Magnets and iron filings; loadstone; magnetic compass
November	Frost; where, when seen; difference in quantity, effect, frost crystals	Continue study of tree's roots, trunk, branches, twigs, buds, wood	Continuation of work of September and October seeds; seed disposal; life cycle	Naming and labeling of seeds for next spring's garden	Animals of today; four kinds of dogs; habits, home, food; storage instincts	Observe birds gathering in groups preparatory to migration	Continue the study of the bee throughout the school year; if this study be not possible	What children must know to set up an aquarium and how to care for it	Illustrate frictional electricity, combined with silk and bits of paper
December	Distance of sun, moon and stars from earth; size of the earth	Make special study of varieties of fir trees	Plants used for Christmas decoration	Age of the earth; soil age; fossils	Wild relatives of the dog: habit, food, storage, instincts, care of young, litters, voice	Name birds commonly seen in winter. A bird's Christmas tree	substitute some water bug or more elaborate study of the work for September and October	Continue work of November; have children write their findings; select the best	Glass rubbed with silk and bits of paper; make an electric fish pond

January	What are the sun, moon and stars; their value to man	Things trees need to grow: air, light, food, water, warmth	Length of life of plants, annuals; perennials; growth of plants in winter	Experiment with germination of seeds under different conditions	How animals are protected against hunger, cold, danger; protection against enemies	Study the winter birds; kinds of sparrows; help to feed them	Study the cockroach; food, habits, size, shape	Show how solids dissolve but do not evaporate
February	Locate familiar constellations learned before; find Orion and dog stars		Study of bulbs planted during the autumn and early winter	Continue work of January	Farm animals; horse and cow; kinds, habits, home, food, care of young, usefulness	Study the domestic ground and water birds (hen and duck) kinds, activities, voices, sexes, nests	abundance, eggs, extermination	Knowledge of three forms of water (ice, liquid, steam); dust in the air
March	Have a star party; make dew in the school room; keep temperature record of schoolroom	Spring awakening of the woods, community life of the woods; why we love the forests	Take field trip to look for signs of awakening of spring	Planting seeds in egg shells; window boxes; observe work of snow and rain	Continuation of January work of work	Continue work of February; include eggs, incubation, brood, appearance, plumage	Read about the cicada; look for them during the summer	Difficulty of stopping heavy bodies in motion (safety in crossing streets, etc.)
April	Observe rain, rainclouds; value of rain; rainbow; study of common colors; the prism	Continue the study of the autumn tree: flowers, pollination, fruit, see distribution. Study a spring-flowering shrub.	Continue study of wild and cultivated flowers; plant two or three kinds of flowers; vegetables	How to plant a home garden; plant a garden; observe work of rain and running water	Continuation of work of February and March; study the rabbit	Compare the wild with the domestic types	Continue the study of tadpoles, frogs, toads	Make whistles from willows; notice sound and pitch
May	Observe by records the gradual change of temperature from week to week	Transplant a tree on Arbor Day; care for it	Observe and keep record of growth; learn "good manners" in picking wild flowers	Attend to the garden; keep record of changes from week to week	What wild relative do you recognize of the horse and cow	Continue work of March and April	Study the salamander and garter snake	Observe the pitch of other whistles; imitate them

The teacher should endeavor to lead each pupil to voluntarily ask to carry on some school science activity during the summer months. This activity preferably should lead to observations and investigations out-of-doors. The activity should be active, attractive and worthwhile, one that will carry on and sustain the interest already developed. These activities will also afford worthy, wholesome and profitable use of leisure time. Some such activity is suggested: Watch the birds building nests. How do they protect themselves? Write in your diary all the interesting things you find out about these creatures.

GRADES FOUR, FIVE, AND SIX**I. Suggested Subjects (By Seasons)****A. Animals**

1. To be studied in the fall

a. Domestic animals

- (1) Chief characteristics of different breeds
- (2) Their usefulness to mankind
- (3) 4-H club activities

b. Wild animals

- (1) How living things are fitted to different environments
- (2) Vertebrates and invertebrates
- (3) Maintaining a balance in nature
- (4) Conservation of wild life

2. To be studied in the winter

a. Domestic animals

- (1) Their food
- (2) Their care

b. Wild animals

- (1) Animals that hibernate
- (2) Fur-bearing animals
- (3) Their food and shelter
- (4) Animals of the past

3. To be studied in the spring

a. Domestic animals

- (1) Increasing the herd
- (2) Young animals and the farm

b. Wild animals

- (1) Plan a trip to observe them in their natural setting
- (2) Observe how they care for their young

B. Animals that live in the water (reptiles, turtles, lizards, snakes, alligators, crocodiles)

1. To be studied in the fall: amphibians, frogs, toads

- a. Their home and how they get their food
- b. How they prepare for winter

2. To be studied in the winter

- a. How animals developed
- b. How animals can hibernate through the winter
- c. How to balance the aquarium

3. To be studied in the spring
 - a. Plan a trip to collect frogs' eggs (or fish eggs) and observe them hatch
 - b. Watch the tadpole develop into a frog
- C. Insects: Continue work that was started in lower grades
 1. To be studied in the fall
 - a. Study the life cycle of the ant, bee, wasp, moth, grasshopper, cricket, gallfly, fly, and mosquito, etc.
 - b. Insects useful in:
 - (1) Carrying pollen
 - (2) Making honey
 - (3) Making silk fiber
 - c. Insects harmful to plants
 - (1) How they can be recognized
 - (2) How they can be destroyed
 - d. Collect and mount cocoons and insects
 2. To be studied in the winter
 - a. Control of insects that carry disease
 - b. Right temperature for cocoons
 3. To be studied in the spring
 - a. Take trips to observe bees in a hive, ants in a hill, water bugs in a pond, or mosquitos in stagnant water
 - b. Continue insect collection
- D. Trees and shrubs
 1. To be studied in the fall
 - a. Be able to recognize trees in the community
 - b. Make leaf and twig collections; mount and label the collections
 - c. Observe seasonal changes in trees. Why the changes?
 - d. Be able to name parts of a tree and know their purpose
 2. To be studied in the winter
 - a. Conservation of trees
 - b. Work of a forest ranger
 - c. The usefulness of trees

(1) Lumber	(4) Rayon
(2) Pulp	(5) Shade, beauty
(3) Tar—resin	(6) Control of erosion
 3. To be studied in the spring
 - a. Study about grafting and pruning
 - b. Plan a trip to observe the awakening of trees and shrubs
 - c. Plant a tree or shrub and take care of it

F. Plants and flowers

1. To be studied in the fall
 - a. Wild flowers in the community
 - b. Common garden flowers
 - c. Make collections of pressed flowers and plants—mounted and labeled
 - d. Flowers which should not be picked
 - e. Green plants and their food
 - f. Non-green plants (mushrooms—mold, yeast, bacteria); their food
 - g. Chlorophyll
 - h. Names and purpose of parts of flowers
 - i. Different plant roots
2. To be studied in the winter
 - a. Experiment with seeds and plants
 - b. Know evergreens; why they stay green
3. To be studied in the spring
 - a. Continue collection of flowers and plants
 - b. Take a trip to observe that certain flowers grow in certain places
 - c. Get children interested in gardens: home, school, 4-H
 - d. Plant flowers and shrubs to beautify homes
 - e. Know annuals and perennials—their care

G. Birds

1. To be studied in the fall
 - a. Be able to recognize birds in the community
 - b. Study migration of birds
 - c. Study how birds maintain a balance in nature
 - d. Game birds—conservation of
 - e. How birds are fitted to obtain food
 - (1) Difference in bills, and feet
 - (2) Flyers and waders
2. To be studied in the winter
 - a. Know birds that winter in Montana
 - b. Collect old birds' nests and study how constructed
 - c. Feed the winter birds
3. To be studied in the spring
 - a. Study spring migration
 - b. Collect pictures of birds or make bird scrapbooks
 - c. Build birdhouses
 - d. Take trips to study birds
 - e. Study chickens and other poultry on the farm

H. The solar system

1. The sun's family
2. The beginning
3. The inner planets
4. Mars and the asteroids
5. Jupiter and Saturn
6. The outer planets
7. Meteors and comets
8. Eclipse of sun or moon
9. Stratosphere

I. Changes all around us

1. Soil, rocks, and minerals
 - a. Influence of worms, insects, and animals on soil
 - b. Influence of weather on soil
2. What is weather?
3. What makes the wind blow?
4. What makes it rain and snow?
5. How are weather forecasts made? What for?
6. Why does the temperature change?
7. How can you measure air pressure
8. How does heat change solids, liquids, and gasses?
9. Weather and air travel
10. Gravity

J. Machines and inventions: Windmills, air kites, sailboats, water-wheels, steam engines, gas engines, electric motors and dynamos

1. Developments in electricity
 - a. Telephone
 - b. Telegraph
 - c. Radio
 - d. Television
2. Household appliances
3. Sound phenomena
4. Levers—The use of
5. Airplanes—Their parts and how they work

K. Electricity

1. How it works
2. Where it comes from
3. How it is controlled (frictional)
4. Electric battery—magnets

Outline of the Course of Elementary School Science

Read from left to right, the chart represents a balanced course in elementary school science for each month.

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More than enough material has been presented for each year so that the course could be flexible enough to meet the varying conditions throughout the State due to difference in time allotment, size of classes, grades in the school, materials accessible in the community and interest and ability of the pupils.

GRADE FOUR

Earth, sky, weather	Trees and shrubs	Plants	Gardens, soils, water, rocks	Mammals	Birds	Insects	Fish, frogs, snakes	Mechanics, toys, inventions, etc.
September Review work of the previous grades; shadows; directions; length of days; characteristics of September weather	Take some familiar tree or shrub common to your locality, follow	Gather autumn flowers and materials; cosmos, asters, black-eyed Susans, etc.	Notice the different kinds of soil in which plants have grown; the largest and best growths	Study the beaver; his work, habitat, food, care for young	Observe to learn all you can about the meadow lark, your State bird	Social life of ants; kinds; farmer ants, carpenter ants; ants' cows	Study a common fish of local waters	Study your bird glass and flow-er microscope to learn how they work
October Evaporation, condensation and erosion as weather elements	the seasonal changes of this tree, observing the leaves, shedding of	Secure flowers of different shapes; have children observe these closely	Continue the work of September; can you discover any connection between kinds of soil and plant growth	Notice animals that live together; those only when migrating; unite for hunting	Study of two game birds which need protection, activities, habitat, appearance, food, game laws	Social life among wasps; those that live together; alone	Study the frog or toad as an animal that hibernates; why called cold-blooded	Review the work of the previous grades
November Encourage daily reports on weather; newspaper reports; radio and telephone reports; weather flags	. . . . . Leaves, leaf scars, buds, their protection, bark, sap,	Find out how the aster, cosmos and black-eyed Susan are alike	Common building stone; recognition of four kinds, usefulness; which ones are best?	The value of animals; recognize kinds of dogs	Find special protection colonies among birds in the surroundings	Social life of spiders; those that spin webs; those that do not	Study the goldfish in school room; his winter habits	How electricity works; dry cells, wire lights, insulate and splice wires
December Motion of the earth; the land, water and atmosphere of the earth	. . . . . roots, awakening in the spring, pollination, flowers	Discover which vegetables are fruits of plants (pepper, tomato, string bean, etc.)	How surface of earth has been changed by water, ice, volcanoes, earthquakes	Give chief characteristics of breeds of cows	Winter birds; permanent residents and winter visitors	Study the insect material you may have collected in the autumn	Why steam has power; cylinder and piston rods	

January	Age of the earth; find stars and constellations studied	..... new growth and seeds. Observe how the tree or shrub	To learn something of plants, the roots of which are used for food (potato)	Learn something of fossils; size and shape of rocks; scratches on them; look for these when spring comes	Animals that hibernate; study the bear	How are birds especially fitted to obtain food; bill, tail, feet	Where are the insects during the winter	Study of the walrus or seal	Centrifugal force (tops, giantstride). Notice which tops are best, why?
February	What stars are seen; study snow and ice	..... prepares for winter; lived through the winter; awakening in the spring-	Grow a carrot or sweet potato suspended in water	To learn how to help our garden plants to grow strong	Observe closely for any action of tame or wild animals that may seem unusual to you; discuss in class	Read about the interesting habits of such birds as eagle, hawk, pelican, in their natural habitat	Learn more about the social life of insects	Study different methods of preserving fish for food; freezing, drying, salt brine, canning	Water wheel illustrating water power may be studied
March	The Milky Way; what it is, where it is, number of stars; myths about the Milky Way	time and continued its growth. Why are the leaves	Discover how crocus has prepared for spring. Draw the crocus	Learn how to prepare the soil to plant carrots, beets, peas, phlox	Recognition of kinds of sheep, activities, habits, home, food, young, voice, appearance, usefulness	Special study of the crow		Get a crayfish for your aquarium. Make a study of him	Kites, sailboats, windmills, illustrate power of moving air
April	Learn something about telescopes	..... green? Uses for wood. Make a list of things in the schoolroom made of wood	Learn more about the crocus; take a field trip to find some	Learn how to transplant a tree or plant; transplant a cabbage or aster; care for it	Same for horses and cows	Spring migration, return to old home; special study of bluebird	Social life in a bee hive; queen bee, workers, drones; eggs; why bees swarm; the honey		Use of propeller for airplanes; weight of air; to prove that it is a real substance;
May	Study about the air; how does it become wind; observe a rain storm	Discuss the year's cycle of tree or shrub growth	Recognize and know something of the spring flowers	To find out when the rain is our friend; observe your garden before and after rain; depth rain reached	Study and observe the social life of the prairie dog	Make a list of all the birds you think you can recognize; take care to see if you can find them	Continue the study of bees		..... hot air in balloons and soap bubbles illustrate comparative weight of hot and cold air

Summer

The teacher should endeavor to lead each pupil to voluntarily ask to carry on some school science activity during the summer months. This activity preferably should lead to observations and investigations out-of-doors. The activity should be active, attractive and worthwhile, one that will carry on and sustain the interest already developed. These activities will also afford worthy, wholesome and profitable use of leisure time. Form an Audubon Society among the class. For particulars write the Audubon Society, 1974 Broadway, New York City. Some such activity is suggested: Take care of your flower garden. Note which flowers grow the most successfully. See if you can find out why they do.

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GRADE FIVE

September	Earth, sky, weather	Trees and shrubs	Plants	Gardens, soils, water, rocks	Mammals	Birds	Insects	Fish, frogs, snakes	Mechanics, toys, inventions, etc.
	Elementary conception of what weather is, its effects; air; what causes rain, snow, sleet, hail, dew, thunder storms	Take a field trip to woods or field; see if you can observe trees and shrubs getting ready for a change	Take a field trip to woods, field or your garden; see if you can observe the plants getting ready for a change	Take a field trip to observe and collect kinds of rocks and soil. Do you know names of the rocks?	Take field trip to see if you can observe animals getting ready for winter	Take a field trip to see if you can observe signs that birds are getting ready for winter	Review and continue work of previous grades, coons, spiders, ants, bees, crickets, grasshoppers	Earthworm: recognition, habitat, home, habits, appearance, parts,	Review the elementary principles of the previous grades; swing, see-saw, top, etc.
October	Watch during the year for the changes in the weather on basis of September work. Find out about the weather bureau	Write, check and discuss any autumnal changes. Bring specimens to prove contentions	Write, check and discuss any autumnal changes. Bring specimens to prove contentions	Collect samples of different kinds of rocks in your neighborhood; find out what you can about them	Write down and discuss your observations. Observe the cat and any of his wild relations	Write down and discuss your observations	Insects that make changes as they grow	adaptation, food, manner of procuring food, eggs, life cycle, enemies, use to man	Magnets; experimenting with them; what makes them work?
November	Find out and observe the stars and star constellations, World Book, pp. 472-77 and Science Readers	Which trees and shrubs store food for winter; why leaves fall; buds	Where plants store food for winter; bring specimens; why the leaves fall	If possible collect samples of granite, sandstone, limestone, coal, onyx, etc.	Do any animals migrate. Observe the wild relatives of the dog	Migration of birds; where to; what time of day and year; the great travelers	Insects that are useful to man: honey bee, silk-worm, dragon-fly, etc.	The bat; the friend of the garden; study according to outline for earthworm	Compasses; magnets as compasses; what makes a compass work?
December	Find out about the sun. World Book, pp. 472-77, and Science Readers	What forests and shrubs do to the soil; influence on climate; wind-breaks	Seeds and how they find places to grow; seeds that sail, jump, slide, tumble,	Find out what you can about how rocks were made; can you find any fossils?	Warm and cold-blooded animals; study the coyote	How did early man explain the migration of birds?	Insects that are harmful to man's health: fly, mosquito, louse, flea	Observe the life of your aquarium	The earth as a big magnet; why we fall down and not up (gravity of the big magnet)

January	Find out about the Solar System, World Book, pp. 472-77, and Science Readers	How to care for forests; forest fires; other enemies of forests	..... steal a ride; slips; bulbs; any other seeds	Find out what you can about how soil was made. Can you find any fossils?	Hibernation; bear, prairie dog; study the rabbit; protective coloration	How do birds find their way? Carrier pigeons?	Insects that eat trees and fruits	Same as December	Electricity and magnetism
February	Life story of a star told by variation in size and color	Our National forests; the forest ranger	Observe the bulbs you have planted; grow a carrot or sweet potato suspended in water	Find out why there are different kinds of soil; test the soil for acidity (use blue litmus paper)	Recognition of common varieties of horse	Help to feed the birds; seed pans, crumbs, suet	Insects that molest man in his home: bed-bug; cockroach	Same as December and January	How to make an electro-magnet
March	Shooting stars, comets and meteors; what the moon is; appearance; eclipse, tides	Takefield trip to observe awakening of trees and shrubs; what are the roots for; the stems; leaves	Special study of strawberry or some other fruit-bearing plant; new plants, leaves, flower and fruit	School or home flower or vegetable garden; how to prepare soil, lay it off, plant, cultivate, weed	Use and superiority of different kinds. Usefulness to man	Build bird houses (be careful to get correct size)	Imported harmful insects: corn borer, gypsy moth, Japanese beetle	Suit the study of fish, frogs and toads to your locality	Which toys do you like best? Why? Which ones are like machines men use? in which ways?
April	Clouds, kinds: summer or storm, wind, heavy rain and stratus clouds; how formed	Review all the trees studied in previous grades; recognition, shape, bark, trunk, leaves, roots, branches,	Continue study of spring, wild and tame flowers. See work of previous grades	..... thin and transplant. Choose one kind of vegetable and two or three aster plants for your	Recognition of common varieties of swine	Recognition of varieties of birds common to your locality	Continue work of previous months	Same as for March	Levers used every day (nutcracker) shovel, pliers, scissors, wheelbarrow
May	Observe clouds and predict the weather; check predictions by weather flag and weather bureau	twigs, buds, wood (nature and use) flowers, pollination, fruit, seeds. Plant and care for Arbor Day tree.	Make a special study of some simple flower such as buttercup, rooster head or crocus garden. Plant and take care of them. Record from week to week your observations and success.	Superiority of different kinds; usefulness to man make observations as to topics given in outlines for previous grades that may not have been covered	Same as for March	Heat, your servant; friction; matches; heat from the sun

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GRADE SIX

	Earth, sky, weather	Trees and shrubs	Plants	Gardens, soils, water, rocks	Mammals	Birds	Insects	Fish, frogs, snakes	Mechanics, toys, inventions, etc.
September	Review work of the previous grades on weather, thermometer, weather observations; all characteristics of fall weather	Make a tree or shrub booklet of the trees or shrubs in your community that you recognize;	Observe the wild flowers of your neighborhood; make a booklet listing the wild	See outline for fifth grade for general character of the nature of the work; for this	How animals help to preserve the balance in nature (coyotes kill rabbits)	How birds help to preserve the balance in nature (birds eat insects)	Study of the ant; review study of great moth family	Learn some of the varieties of fish common to the lakes or streams of your neighborhood	Review work of the fifth grade; continue through the sixth your mechanics, toys, inventions, etc.
October	Learn what you can of the sun and his family (planets); study the almanac to learn about sun, moon, and planets	. . . . . describe each very briefly as to where found, size, shape, leaves, buds, pollination, flowers, wood, usefulness . . . . .	. . . . . flowers under three heads (those that should not be picked, those picked sparingly, those picked freely . . . . .	. . . . . grade this year, select Montana products of the vegetable and flower gardens	How do animals defend themselves; prevent extinction; extinct species	Which are the ceiling cleaners; furniture cleaners; carpet cleaners; sink and drain; vermin de-	Continue the study of the spider; the bee; the	Make a study of trout and trout fishing	Some understanding of elementary principles used in common household tools and appliances
November	Find any six first magnitude stars; polar constellations	Add anything else distinctive to make booklet attractive, as pictures, pressed leaves, seeds, bark, (information from observation not from books)	. . . . . follow the same outline for trees and shrubs	. . . . . outline the kinds and varieties we now produce and the possible	Relate stories of your experience or the experience of others, showing the intelligence of animals	. . . . . stroyers; garbage cleaners	wasp; grasshopper, cricket and flies	Learn turtles, lizards are also reptiles; needless fears of non-poisonous snakes	Study various electric fuses; study various types of electric wires
December	Locate at least four other constellations in winter and four in summer	Study the early ancestors of trees. From what did trees grow? Were they always like they are now?	Study holly, mistletoe and Christmas greens	developments in the future discuss the	First appearance of mammals	First appearance of birds	First appearance of insects	First appearance of reptiles	How to prevent short circuit; insulation; make an electric bell

January	Why do we study about the stars and constellations? Try to get a book of myths to read the stories invented about constellations.	Observe the evergreens; study them according to	Study bacteria, mold, mildew, fungi	. . . . . kind of soil; amount of water; sunshine best	Fossils that tell history	Same as December	Same as December	Age of fishes	Make a telegraph outfit. Examine an electric telephone and discuss it
February	Our near neighbor, the moon; physical condition of the moon; phases; effect upon life on the earth	. . . . . the outline for other species of trees	Continue work of January	. . . . . suited for the needs of each; the size, shape, roots, leaves,	Fur-bearing animals	Make a study of varieties of chickens; recognition, etc.	Disease carriers	Take a trip to fish market or shop for class to see kinds of fish	Make a radio set
March	Other objects formed from the sun; comets; shooting stars; meteors	Age of trees; rings of growth; old trees; young trees	Study ferns and flowerless plants	. . . . . stem, pollination, flowers, fruits and seeds	Game animals (deer, moose, elk)	Make a study of varieties of turkeys and ducks, etc.	Enemies of trees, plants, shrubs	Observe all you can in regard to eggs of fish, frogs and snakes	Uses of electricity, power, sound, heat, X-ray. Dangers of loose and live wires.
April	What do geologists read from the layers of earth? Why are the layers their story book?	How do trees grow? Explain the work of the roots, bark; branches, green leaves	Write to Wild Flower Preservation Society, Washington, D. C. . . . .	. . . . . how to plant, care for, harvest and market the crop if	List the varieties of most common domestic animals, giving distinctive characteristics of each	Importation of harmful insects	Continue the study outlined for March and follow the development	Airplanes; study of parts; encourage experimentation at home	
May	Take a field trip; see if you can discover something interesting from the different layers of earth	Learn something of grafting, pruning; plant an Arbor Day tree for posters and information on wild flowers. Continue work of year not finished; also for fifth grade.	Vegetables-- how they should be canned	Have pupil describe particular animal he thinks most interesting; give reasons	Have pupil describe the fowl he thinks most interesting; give reasons	Flowers and insects that are partners (pollination) of the eggs into tadpoles and small fish	Experiments to show the might of air; study of balloons, dirigibles

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GRADES SEVEN AND EIGHT**I. The Forces in Nature Which Influence Plant Growth****A. Soil**

1. How it is made
 - a. Weathering agencies
 - (1) Wind
 - (2) Water
 - (3) Temperature changes
 - b. Organic matter
 - c. Minerals
2. Soil fertility: Conditions necessary for plant growth
 - a. Minerals in the soil
 - b. Fertilization
 - c. Humus; how produced
 - d. Acidity
 - e. Alkalinity

B. Light

1. Determined by the size of the sun
2. Determined by the distance of the sun from the earth
3. Cause of day and night
4. Cause of the seasons
5. Need of sunlight for plant growth
 - a. Can some plants grow without sunlight?
 - b. Does glass keep out any of the sun's rays?
 - c. How do long Montana summer days affect plant growth?
6. Sunspots
7. Artificial light for growing

C. Heat

1. Evidences of effect on vegetation in:
 - a. Tropics
 - b. Temperate zones
 3. Arctics
2. Effects of direct and slanting rays of sun
3. Artificial heat
 - a. Hotbeds
 - b. Coldframes
 - c. Greenhouses
 - d. Effect on house plants

D. Air

1. What air gives to plants
2. What air gets from plants
3. Necessity for ventilating hotbeds and coldframes
4. Wind damage to growing plants
5. How winds affect temperature
 - a. Moving air prevents frost
 - b. Moving air carries moisture
 - c. Effects on land of air tempered by ocean currents
6. Montana winds
 - a. Prevailing Westerlies
 - b. Chinooks

E. Moisture

1. How clouds form
2. Explanation of moisture phenomena
 - a. Rain
 - b. Snow
 - c. Hail
 - d. Fog
 - e. Dew
 - f. Mist
 - g. Frost
 - h. Ice
3. How soil gets moisture
 - a. Precipitation
 - b. Irrigation
 - (1) Sprinkling
 - (2) Flooding
 - (3) Ditching
 - c. Subirrigation
4. How soil loses moisture
 - a. Runoff and seepage
 - b. Evaporation
 - c. Plants
5. Farming practices that conserve moisture
 - a. Killing weeds
 - b. Summer-fallowing and strip-farming
 - c. Dust mulch
 - d. Contours
 - e. Windbreaks
 - f. Dams and reservoirs

II. How Man Aids and Utilizes Plant Growth

A. Vegetable and flower gardens

1. Choice of location of garden plot

a. Nature of the soil

(1) Use of fertilization

(2) Absence of alkali

b. Distance from the house

c. Availability of water for irrigation

d. Direction of the rows

e. Protection from wind and frost

(1) Windbreaks

(2) Air drainage

2. Cultivation

a. Before planting

b. During growing season

c. Elimination of weeds

3. Selection of seed and plants

a. Varieties suited to conditions

b. Testing before planting

c. Treating for scab and rust

d. Hardening plants

4. Harvesting

a. Use fresh vegetables during season

b. Harvest crop when it is ready

c. Forget the moon and other superstitions

5. Storage for winter

a. Keeping in root cellars

b. Drying

c. Canning

d. Pickling

B. Field crops in Montana

1. Cereals

a. Wheat

b. Corn

c. Oats

d. Barley

e. Rye

2. Hay

a. Native grass

b. Clovers

c. Alfalfa

- d. Timothy
- e. Peas
- f. Crested wheat grass
- g. Other hay crops
- 3. Root crops
 - a. Potatoes
 - b. Sugar beets
 - c. Other root crops
- 4. Other crops
 - a. Beans and peas
 - b. Mustard
 - c. Soybeans
- C. Fruit
 - 1. Apples
 - 2. Cherries
 - 3. Berries
 - 4. Plums
 - 5. Melons
 - 6. Other fruits

III. How Man Aids and Utilizes Animal Growth

- A. Poultry
 - 1. Breeds
 - a. Breeds to produce eggs
 - b. Breeds to produce meat
 - c. Breeds for general purpose
 - 2. Shelter
 - a. Brooder house for young chicks
 - b. The laying house or fattening pens
 - (1) Ventilation
 - (2) Cleanliness of nests, roosts, floor
 - (3) Protection from vermin and predatory animals
 - (4) Clean water supply and food supply
 - (5) Protection from low temperatures
 - (6) Artificial lighting for egg production
 - 3. The flock
 - a. Acquiring the birds
 - (1) Natural incubation
 - (2) Artificial incubation
 - (3) Day-old chicks
 - (4) Young pullets or cockerels

- b. Brooder period
 - (1) Proper temperatures for different ages
 - (2) Proper shape to prevent piling
 - (3) Value of cod liver oil
 - (4) Sick birds isolated from others
 - (5) Opportunity for chicks to exercise
 - (6) Proper growing diet
- c. Fattening period for meat birds
 - (1) Plenty of feed and water
 - (2) Reduced exercise
 - (3) Cleanliness
- d. The laying period
 - (1) Proper laying diet
 - (2) Proper nesting
 - (3) Egg record
 - (4) Culling out poor layers

B. Cattle

- 1. History: domestication
- 2. Shelter
- 3. Breeds

a. Meat breeds of cattle

- (1) Montana advantages for beef production
 - (a) Splendid grass and hay
 - (b) Fair production of fattening grains
 - (c) Cheap land and range
 - (d) Abundant water
 - (e) Snow-free hilltops in winter
- (2) Montana disadvantages
 - (a) Occasional drought
 - (b) Distance from market
- (4) Digestive anatomy of a cow
- (5) Marketing
 - (a) Home butchering
 - (b) Middlemen and buyers
 - (c) Shipping to distant market
- (6) Price received by farmer

b. Dual-purpose breeds of cattle

- (1) Advantage for small farmer
- (2) Disadvantage in large herds

- c. Milk breeds of cattle
 - (1) Montana, a dairy state
 - (a) Local whole-milk markets
 - (b) Dried milk
 - (c) Shipping cream and butter
 - (2) Contour of dairy cow
 - (3) Feed—a balanced ration
 - (4) Value of milk products as food
 - (5) Cleanliness necessary in handling milk
 - (6) Milk marketing
 - (7) Pasteurizing milk
 - (8) Buttermaking
 - (9) Cheese making
- C. Sheep
 - 1. Wool and meat production
 - 2. Montana, a leading sheep state
- D. Hogs
 - 1. Feed and care
 - 2. Production in Montana
- E. Horses
 - 1. Feed and care
 - 2. Production in Montana

IV. How Man Improves His Environment

- A. Physical surroundings
 - 1. Forestation
 - 2. Lawns and gardens
 - 3. Landscaping
- B. Communications and transportation
 - 1. Good roads
 - 2. Automobiles
 - a. For pleasure
 - b. For transport
 - 3. Rural free mail delivery
 - 4. The telephone
 - 5. The radio
- C. Shelter
 - 1. Home comfort
 - a. Furnishings
 - b. Lighting

- c. Heat
- d. Air conditioning
- 2. Home beauty
 - a. Design of house
 - b. Outside finish
 - (1) Structure
 - (2) Paint
 - (3) Repair
 - c. Inside finish
 - (1) Floors and floor coverings
 - (2) Wall: finish and repair
 - (3) Windows and window draperies
 - (4) Color harmony
 - d. Flowers and plants in the home
- 3. Saving labor in the home
 - a. Central heating; types of fuels
 - (1) Coal
 - (2) Wood and sawdust
 - (3) Oil and gas
 - b. Electricity
 - (1) Washers and ironers
 - (2) Ranges, plates, and toasters
 - (3) Other household devices
 - (4) Electric tools

V. The Stars and the Solar System

A. Stars

- 1. What they are made of
- 2. Their distance from the earth
- 3. Constellations, the Milky Way
- 4. The "science" of astrology

B. The sun

- 1. Its influence on our daily life
- 2. How it holds the members of the solar system in place
- 3. What eclipses of the sun are

C. The planets

- 1. Their order in the solar system
- 2. Their comparative size
- 3. The length of their years
- 4. Possibilities of life on the planets
- 5. Morning and evening "stars"

D. The moon

1. Its influence on our daily life
2. The moon phases
3. Possibility of life on the moon

E. The earth

1. Its movements and inclination
 - a. Day and night
 - b. The year
 - c. The seasons
2. Longitude and latitude
 - a. Value of imaginary circles
 - b. The international date line
 - c. The temperature zones
 - d. Great circle navigation
 - e. The poles
3. Comparative land and water areas

VI. Weather

A. Temperature

1. Measurement by thermometers
2. Effect on air movements
3. Effect on bird and animal migrations
4. Effect on man's mode of living

B. Air pressure

1. Measurement by barometers
2. Effect on air movements
3. Storm predictions by barometer

C. Moisture

1. Causes of precipitation
 - a. Rain
 - b. Snow
 - c. Hail
2. Storms
3. Relative humidity
4. Influence of topography on distribution of moisture
5. Drought cycles

VII. Water

- A. Composition of water
- B. Meaning of a solution (name some substances that dissolve in water)
- C. Properties of water
- D. Uses of water
 - 1. Rivers, lakes, and oceans as aids to transportation
 - 2. Irrigation
 - 3. Placer mining
 - 4. Logging industry
 - 5. Smelting and ore reduction
 - 6. Fire prevention and control
 - 7. Power
 - a. Water power plants in Montana
 - b. Types of water generators
 - c. Comparison of power possibilities in mountainous and in flat country
 - d. How power is carried to place where it is needed
 - 7. In the home
 - a. Sources of pure water supply for the home
 - b. City water supplies, how carried?
 - c. Dangers from infected water
 - d. Cleanliness
 - e. Use in carrying away waste

VIII. Fire

- A. Early man's understanding of fire
 - 1. Worship
 - 2. Uses for warmth and for cooking
 - 3. Fire from friction
 - 4. Fire from lightening
- B. Uses of fire today
 - 1. Warmth
 - 2. Cooking food
 - 3. Sanitation
 - 4. In industry
 - a. Steam power
 - b. Melting of ores and purifying of metals
 - c. Clearing land
 - d. Destroying waste matter

C. Dangers from fire

1. Fires in homes
2. Forest fires
3. Fire in warfare

D. Fuels

1. Conditions necessary for combustion
2. Substances commonly used for fuel
 - a. Wood
 - b. Coal
 - c. Peat
 - d. Petroleum products
 - e. Natural gas
3. Man's control of fire
 - a. Fire in the home
 - b. Forest and grass fires
 - c. Fire resulting from war bombing

IX. Electricity

A. Magnets

1. Horseshoe magnet
2. Bar magnets
3. Electromagnets

B. Doorbells

C. Telegraph instruments

D. Telephone instruments

E. The radio

1. In entertainment
2. In disseminating information
3. In warfare

Outline of the Course in Elementary School Science

Read from left to right, the chart represents a balanced course in elementary school science for each month. Read from top to bottom, the chart represents the development of each topic by months for the year. If a break in the sequence of topics occurs from autumn to the winter months or from winter to the spring months this is due to seasonal causes. Seasonal conditions may necessitate a change of placement by months of some of the suggested lessons.

More than enough material has been presented for each year so that the course could be flexible enough to meet the varying conditions throughout the State due to difference in time allotment, size of classes, grades in the school, materials accessible in the community and interest and ability of the pupils.

GRADES SEVEN AND EIGHT

	Earth, sky, weather	Trees and shrubs	Plants	Gardens, soils, water, rocks	Mammals	Birds	Insects	Fish, frogs, snakes	Mechanics, toys, inventions, etc.
September	Write to U. S. Weather Bureau, Washington, D. C., for weather maps	Make a collection of seeds of native trees and name them	Identify the common weeds of your locality; learn how to eradicate them	Take a field trip to see how a well-taken care of garden is prepared for winter	Make a study of wild animals (See outline)	Recognition of common birds	Caterpillar, review topics of previous grades, relation to man's interests, control	Review and amplify the study of frogs and toads as presented in previous grades	Find out how many appliances Thomas Edison has helped to bring to your home . . .
October	Learn to read the government weather maps	From your observations tell the ways in which trees are useful	Recognition of the varieties of wild and cultivated flowers	Examine water-worn rocks and tell how they have been changed by erosion	Make a study of pet animals (See outline)	Habits and ways of living of birds	Moths and butterflies, special study of one of each	Continue work of September	. . . . . make a penny appear and disappear. Trafton, pp. 193-196.
November	Collect signs and proverbs to show people who have weather superstitions	Of what value are the leaves to a tree	Make a study of corn	Consult reference books and make a report on wind erosion	How animals prepare for winter	Harmful and helpful characteristics of each	Insects (at least three) that are helpful, enemies; recognition; activities; habitat; habits;	Study the toad, farmer's friend	Make and use a water barometer
December	Try by observations of the weather to verify the superstitions	Prepare a report on the lumber used in building a new home in your vicinity	Make a study of bacteria, mold and mildew	Test soils for acidity	Study the fur-bearing animals of your locality	Origin of domestic chicken, duck, turkey and goose . . .	. . . characteristics; movements; appearances; parts and adaptations; food; eggs	Study the importance of commercial species of fish; salmon, habitat, oysters . .	Make a simple weathervane

January	Look for shooting stars. How do they differ from true stars?	Learn from your dealer the cost of each kind of lumber	Germinate some flower and vegetable seeds	Classify the rocks of the community as sedimentary, igneous; metamorphism	Continue the work of December	Characteristic each to mankind	..... life cycle; enemies; self-protection; use to nature; relation to man's interests	parts, adaptations, food, eggs, care of young, migration, range	Learn what makes an airplane stay in the air
February	Where do shooting stars come from? Where do they get their light?	Learn where each kind of wood is produced	Make a study of one fruit grown in Montana	Plant some flower and vegetable seeds inside in window boxes	Study fur farming and its possibilities for Montana	Incubation	Study the life cycle of one or more of the social	..... enemies; how caught; purpose and sale; use to man	Name the parts of a radio; what is the function of each part
March	Keep a record of the kinds of clouds you observe for the month	Write to the Forestry Dept. of State University, Missoula, for forestry bulletins	Make a study of legumes	Make collection of kinds of soil found in your vicinity	Make a study of swine	General care of poultry	..... insects; bees, wasps, ants	Fish: six kinds common to local waters	Make and operate a siphon; study and experiment with filtration
April	Make a star map	Study how to select, transplant and care for a tree	Study the planting of the potato	Experiment with these samples of soil to ascertain the crop most suitable for each kind	Make a study of horses	Two general types of each, recognition of breeds	Laws concerning importation of foreign insects of harmful species	Special study of one kind, as the trout	Study and experiment with testing and pasteurization of milk
May	Plot the northern sky; put in the constellations visible the year around	Plant a tree on Arbor Day; care for it	Importance of pollen; spread. Study of State Flower, Bitter Root.	Plant and care for a flower or small vegetable garden	Make a study of cattle	Special study of your State Bird, the Meadow Lark	Review or complete any of the work of year unfinished	Study snakes as friends and foes (three poisonous, three beneficial species)	Experiment with electric bell, telegraph and electric telephone

The teacher should endeavor to lead each pupil to voluntarily ask to carry on some school science activity during the summer months. This activity preferably should lead to observations and investigations out-of-doors. The activity should be active, attractive and worthwhile, one that will carry on and sustain the interest already developed. These activities will also afford worthy, wholesome and profitable use of leisure time. Form an Audubon Society among the class. For particulars write the Audubon Society, 1974 Broadway, New York City. Some such activities are suggested: How many kinds of butterflies do you see? How many can you name? Make a collection of butterflies. Find out all you can about the habits of your State Bird, the Meadow Lark. From the outline given for the study of flowers, learn about your State Flower, the Bitter Root.

COURSE OF STUDY IN CONSERVATION

I. Introduction

Soil, water, vegetation, animals, minerals, natural beauty, and human resources are the principal natural resources of our country. When the first explorers came to America, they found most of these resources existing in great abundance. In the years that have intervened between that time and the present, man, in his exploitation of these resources, has wasted many of them.

The conservation of natural resources does not mean withholding them from use, but it means using them intelligently, so that they will not be wasted and so that they may be replaced wherever replacement is possible. Natural resources are of two kinds:

A. Those that are exhaustible

1. Minerals

There is a limit to the supply of minerals which can be produced from the earth's crust. Expanding frontiers may bring to light new mineral areas, but when the deposits are finally used up, the supplies are exhausted. Some minerals frequently wasted:

- a. Coal (anthracite, bituminous, lignite)
- b. Metals
- c. Petroleum and natural gas
- d. Water
- e. Vegetation

2. Soil

While soil can be rebuilt to some extent, this rebuilding requires many, many years, if the soil has been lost or depleted. For this reason soil may be classed as an exhaustible resource.

B. Those that are renewable

1. Vegetation
2. Animal life, (provided species have not been permitted to become wholly extinct)
3. Natural beauty

II. Objectives

- A. To give the child a basic understanding and an appreciation of the natural resources of the locality in which he lives
- B. To give the child an understanding and appreciation of the need to protect the natural resources of the locality in which he lives
- C. To give the child knowledge of the factors affecting nature's resources

- D. To show the child how soil, water, and nature are interdependent
- E. To give the child knowledge and experiences which will enable him to participate in a conservation program

III. Texts

- A. No one text is recommended in the Course of Study in Conservation. Many books and sources are listed in the bibliography, and it is hoped that the teacher will be able to secure much reading and picture material for the study of Conservation.

IV. Procedure and Content

The procedures in teaching Conservation and the subject-matter areas covered are so similar to those found under the subjects science, safety, health, and social science that it is difficult to establish boundaries for Conservation as a school subject. The subject is given individual treatment in this course of study merely because the need for emphasizing conservation in Montana is so great. No attempt is made to set up a separate program of units to be used in teaching Conservation alone. Instead, brief outlines are suggested, by means of which problems in Conservation which grow out of the Social Science Units and of seasonal and community activities, may be studied. The subjects for these outlines are: soil and water, animals, birds, insects, minerals, plants, scenic beauty, and human resources. In making plans for the study of a Social Science Unit the teacher should check through the Conservation outlines to discover in what ways Conservation may be introduced in the Unit.

A. Soil, rain, and sunlight

1. Interdependence of soil, water, vegetation; water cycle
2. Destruction of soil by water, wind, and loss of plant roots
3. Water conservation and irrigation; Montana irrigation and its possibilities
4. Excessive land-breaking and denudation
5. Conservative farming methods dealing with
 - a. Overgrazing
 - b. Dry farming
 - c. Fertilization
 - d. Nitrogenization
6. The sun and growth
 - a. How plants make food
 - b. How man and animals depend on plants

B. The animal kingdom

1. Our pets
 - a. Value of animal pets
 - b. Care and treatment of pets
2. Animals that work for us
 - a. Care of domestic animals
 - b. Training
3. Wild animals—general knowledge of
4. Sport and commercial value of wild animals
5. How animals protect themselves from their enemies
6. Relationship between plants, animals, and soil: interdependence in life cycle

C. Our feathered friends

1. Recognition of birds and their nests
2. Value of birds
 - a. Songs and beauty
 - b. Insect destruction
 - c. Food and sport value—government revenue
3. Enemies of birds
 - a. Cat, hunting dog
 - b. Destructive birds
 - c. Spring field burning
 - d. Some farming
 - e. Man
4. Emphasis on recognition of destructive birds to avoid careless killing of birds not so classified
5. Interdependence of birds, plants, soil, man (nitrogen cycle)

D. Little things that crawl and fly

1. Value of insects
 - a. Bees
 - b. Insects that make the ground porous: angleworms, ants
 - c. Silkworms
2. Life of insects
 - a. Metamorphosis
 - b. Reproduction
3. Harmful insects
 - a. Fly
 - b. Mosquito
 - c. Hessian fly
 - d. Locusts

E. Buried treasure

1. Oil and gas
 - a. Formation of deposits by nature
 - b. Methods of drilling
 - c. Wasteful practices
 - (1) Natural gas loss
 - (2) Abandoned wells
2. Coal, metals, and stone
 - a. Natural formation
 - b. Mining methods
 - (1) Tunnel mine
 - (2) Strip mine
 - (3) Other methods
 - c. Dump piles
 - d. Successive veinings of coal
3. Value of oil wells and mines to State of Montana

F. Plants

1. Montana's forests
 - a. Extent and kinds of
 - b. The lumber industry
2. Waste of plant life
 - a. Lumber loss through waste
 - b. Forest fires
 - c. Effect on soil of denudation
3. Grass and other plants
 - a. Value as food to animals
 - b. Garden plants
4. Effect of overgrazing and cultivating
5. Better lumbering practices
 - Study of lumbering as planned by the Forest Service
6. Forest Service
 - a. Montana State
 - b. National

G. The sportsmen's world

1. Hunting stories and practices
2. Preservation of hunting and fishing through conservation
 - a. Bird feeding
 - b. Game regulations
3. Need for game laws
 - a. Extinct and near-extinct species of gamé

H. Conservation of human resources (A detailed outline on Conservation of Human Resources follows, page 468)

1. Conservation of human life
2. Conservation of human energy
 - a. Rest
 - b. Food
 - c. Work
 - d. Exercise

V. Outcomes

- A. A knowledge of Montana's natural resources
- B. An understanding of how natural resources are wasted
- C. An appreciation of natural beauty
- D. A desire to conserve natural resources and beauty
- E. A willingness to enlist in a cooperative program of conservation

VI. Bibliography

A. Books and Pamphlets

- Allen, Arthur A. *The Book of Bird Life*. D. Van Nostrand Company, New York City, 1930
- Anthony, H. E. *Field Book of North American Mammals*. G. P. Putnam's Sons, New York City, 1935
- Ashburn, D. E., and others. *Conservation as a National Problem*. Southern Methodist University, Dallas, Texas, 1938
- Batburst, E. G. *Conservation of Natural Resources*. Creative Education, Mankato, Minnesota, 1940
- Benner, G. T., and Hartley, W. H. *Conservation and Citizenship*. D. C. Heath and Co., Chicago, 1940
- Coyle, David Cushman. *Our Forests*. National Home Library Foundation, Washington, D. C., 1940
- Flynn, H. E., and Perkins, F. C. *Conservation of the National Resources*. The MacMillan Company, San Francisco, 1941
- Gustafson, A. F., Guise, C. H., Hamilton, W. J., Ries, H. *Conservation in the United States*. Comstock Publishing Co., Inc., Cornell Heights, Ithaca, New York, 1941
- Havemeyer, Loomis and others. *Conservation of our National Resources*. The MacMillan Company, New York City, 1930
- Jacks, G. V., and Whyte, R. O. *Vanishing Lands*. Doubleday, Doran and Company, New York City, 1939
- Parkins, A. E., and Whitaker, J. R. *Our National Resources and Their Conservation*. John Wiley and Sons, New York City, 1936
- Peterson, Alvin M. *Wild Bird Neighbors*. Bruce Publishing Company, Chicago, 1936
- Peterson, R. T. *A Field Guide to the Birds*. Houghton-Mifflin Company, Boston, 1934

Conservation in the United States. Cornell University, Ithaca, New York

Conserve Our National Resources: Soil, Water, Forests, Flowers, Fish, Birds, Mammals. National Wildlife Federation, Washington, D. C., 1941. This is a four-book series: Book One. Would You Like to Have Lived When? Grades 3, 4, and 5; Book Two. Raindrops and Muddy Rivers, for Grades 4, 5, and 6; Book Three. Plants and Animals Live Together, for Grades 5, 6, and 7; Book Four. Nation's Bank—The Soil for Grades 6, 7, and 8. These books, in pamphlet form, are beautifully illustrated, and they are admirably suited to grade-school pupils. Every school should have them.

B. United States publications

Granger, Wallace. Winter Feeding of Wildlife on Northern Farms. United States Department of Agriculture, Miscellaneous Publications 159, Washington, D. C., 1933

Document No. 199, 74th Session of Congress, 2nd session, United States Government Printing Office, Washington, D. C.

Groups of Plants Valuable for Wildlife Utilization and Erosion Control. United States Department of Agriculture, Circular 412, Washington, D. C., 1936

Local Bird Refuges. Farmer's Bulletin No. 1644, United States Department of Agriculture, Washington, D. C., 1937

Soil Conservation. Monthly publication of the United States Department of Agriculture, Washington, D. C.

Many free publications on Conservation of wildlife, forests, soil, and other resources may be secured free or at small cost. Write the Superintendent of Documents, Washington, D. C., for a list of these publications.

Other Federal Agencies from which free material may be secured: Forest Service; Resettlement Administration; National Park Service; Soil Conservation Service; National Resources Committee; Federal Power Commission and, more broadly speaking, the Federal Department of Agriculture, Commerce, Interior, Labor, and War, all of Washington, D. C.

C. The State College, Bozeman, Montana, has done much research on Conservation. Write for free bulletins and other materials.

D. Volunteer Adult Organizations

American Forestry Association, 919 17th Street, N. W., Washington, D. C.

American Wildlife Federation, Washington, D. C.

Garden Club of America, 598 Madison Avenue, New York

National Association of Audubon Societies, 461 8th Avenue, New York

National Recreation Association, 315 4th Avenue, New York

E. Nature Magazine, monthly publication of The American Nature Association, Washington, D. C.

CONSERVATION OF HUMAN RESOURCES

I. Conservation of Human Resources

A. Adaptation of man to natural conditions

1. Food and clothing
2. Shelter
3. Artificial warmth or cooling

B. Prevention of accidents and injuries

1. Falls—causes

- a. Loose boards and stairsteps
- b. Polished floors
- c. Rag rugs
- d. Dark halls and entryways
- e. Toys and other objects out of place

2. Burns—causes

- a. Careless use of matches
- b. Starting fires
- c. Open fireplaces
- d. Boiling water on stoves
- e. Kerosene and gasoline
- f. Electricity

3. Traffic accidents—causes

- a. Carelessness in crossing streets
- b. Careless driving of automobiles
- c. Pedestrian carelessness on roads and streets

4. Asphyxiation—causes

- a. Gas stoves
- b. Carbon monoxide from car exhaust

5. Playground accidents—causes

- a. Swinging too high
- b. Running with sticks
- c. Climbing to high places
- d. "Crack-the-whip"

6. Poisoning—causes

- a. Improper care of foods
- b. Eating of doubtful mushrooms and berries
- c. Improper care of poisons kept in the home

7. Accidents in sports

a. Swimming—causes

- (1) Swimming alone
- (2) Swimming beyond one's depth
- (3) Swimming too soon after eating
- (4) Diving in unknown waters

b. Skating—causes

- (1) Skating on thin ice
- (2) Skating alone

c. Coasting and skiing—causes

- (1) On an unknown track or course
- (2) At an unreasonable speed
- (3) Coasting or skiing alone

d. Hunting—causes

- (1) Ignorance in the use of a gun
- (2) Hunting with careless companions
- (3) Lack of care in climbing fences
- (4) Guns loaded in automobiles and in the house
- (5) Failure to wear bright-colored clothing for identification

THE COURSE IN THE SOCIAL STUDIES

General Suggestions

I. Introduction

The social studies represent an attempt to help children discover how life as lived by the people of America today is the result of the efforts of the human race, through a long period of time, to wrest from nature a richer and fuller life. Sometimes, in our desire for further improvement, we forget that our life is rich and full; sometimes, in our enjoyment of the position we have reached, we forget that more satisfying modes of democratic living lie on ahead. To live life today to its fullest, and to discover bases for even richer life for ourselves and others in the years to come, are both the privilege and the responsibility of free men and women, and of free boys and girls.

The social studies, when they were first introduced into the school program, were thought of as three unrelated subjects: history which appeared in the elementary school in about the fourth grade and continued through the eighth; geography which appeared at about the same level, or a little earlier, and continued through the seventh grade; and civics, which was a special field of study designed for eighth grade consumption. It is the plan of this course of study to consider the social studies as consisting still of the experiences which can be introduced under these three subjects, but that the boundaries separating the subjects be largely broken down, and that the factual knowledge introduced in the three subjects be not considered sufficient unto itself, but that it lead children to proper attitudes and understandings. It is also the plan of this course that broader interpretations be given to the field of knowledge which each of the above subjects covers.

A. History

From the viewpoint of this course in the social studies, history is the story of events that have happened and are happening, and of the people who were and are participants in those events. The people who have made history did not necessarily live in remote times; they are living all about us today. They do not necessarily do things which entitle them individually to national birthday celebrations or notices in "Who's Who." They are the people who contribute, by their daily cooperative living, to the progress of a group or a community, and in so doing make their story a part of the tradition and history of the race. It is fundamental in this course in history that a child must be familiar with the body of tradition and story which forms the background for American

life today. The great events and movements of the past must be understood, some idea of their sequence must be developed, and their cause-and-effect relationships with the present must be traced. However, even historical events of the greater magnitudes have little value in themselves or if studied as isolated facts; it is only as the story of mankind becomes continuous and connected that the influence of past events upon present living can be discovered. Under the heading, History, then, in this course, will be grouped all those experiences of people, remote, recent, and present, that make up the life stories of individuals, groups, communities, states, and nations.

B. Geography

If history is the story of events that have happened and are happening, geography is the picture of the physical setting in which these events take place. Whatever gives a child a perspective of space, of area, of distance, of land and water forms, of climate and seasonal changes, of topography, or of other factors of the physical environments in which people have lived, teaches him geography. It is the plan of this course that the teacher should not consider geography as an independent study which begins in the third grade and ends in the seventh grade; but that she think of geography as all of the influences on human living which the concepts enumerated in this paragraph bring to the child every day that he is in the elementary school.

C. Civics

In many schools it has been assumed that, since in one sense democracy is a form of government, we must teach democracy through an analysis of the bases of that government. Accordingly, a course in civics has been an analysis of forms of government and has been given usually in the eighth grade.

Democracy is more than a kind of government; it is a way of living. Children cannot get this concept of democracy by merely devoting a period each day of the eighth year to learning about democratic forms. To be able to understand democracy as a way of life, the child must have several types of experiences; and these experiences must continue throughout the eight years of the elementary school.

The child must have first-hand experiences in democratic living. If he is to achieve a faith and a pride in American institutions, he must participate in the activities of those institutions and see that they work. The school itself must be a democracy where the teacher works with the students in the role of a consultant and guide rather than as a dictator.

Teacher and pupils explore interesting areas together and work out the solutions to problems which affect not only children in the schoolroom, but the people of the community or countryside, and even the citizens of the larger communities which comprise the state and the nation. In his school experiences, the child must learn that while living in a democracy affords many privileges, it also imposes many responsibilities; and that it is in the acceptance of these responsibilities that an individual makes his contribution to the American way of living.

Through books, plays, pictures, and news stories the child will acquire a picture of democracy that is broader than the picture which he is able to obtain from first-hand experiences. He must know the freedoms for which democracy stands, and the sacrifices which Americans have made to achieve those freedoms. He must know why we have elections, why we make laws, why we submit to quarantines, what national parks are for, why we go to war, and the why's and wherefore's of all the evidences of democratic living everywhere.

Through the study of civics the child must acquire an understanding of the framework of democratic government in the community, in the state, and in the nation.

While the traditional name "Civics" is retained in this course in social studies to designate those experiences necessary to the understanding of democracy as a way of living, and not merely as a form of government, the teacher must remember that the term is used in a very broad sense, and includes an understanding of the interdependencies of people and of all those social experiences from which democratic living springs.

II. Objectives

- A. To understand the geographic causes which affect the physical environment in which people live
- B. To understand and appreciate the foundations that the past has laid for the present
- C. To understand how people live in the interdependent society of today
- D. To understand that humanity is progressing; and to develop a desire to help in promoting this progress
- E. To acquire an appreciation of the American way of living and a desire to help its progress to finer goals for the future
- F. To acquire a respect for individuals, and a tolerance and goodwill toward all races, classes, and nations

III. Texts

The texts in use at the time of printing this course of study are:

A. Geography

Atwood-Thomas. Nations Beyond the Sea. Grade Six. Ginn & Company, San Francisco.

Atwood-Thomas. The Americas. Grade Five. Ginn & Company, San Francisco.

Atwood-Thomas. The United States Among the Nations. Grade Seven. Ginn & Company, San Francisco.

Atwood-Thomas-Hart. Home Life in Far-Away Lands. Grade Four. Ginn & Company.

Smith. Home Folks. Grade Three. The John C. Winston Company, Chicago.

B. History

Freeland. America's World Backgrounds. New Frontier Social Science Series. Grade Six. Charles Scribner's Sons, San Francisco

Kelty. The Beginnings of the American People and Nation. Grade Four. Ginn & Company.

Kelty. The Growth of the American People and Nation. Grade Five. Ginn & Company.

West and West. The Story of Our Country. Grade Seven. Allyn & Bacon, San Francisco

West and West. The Story of Our Country. Grade Eight. Allyn & Bacon, San Francisco.

C. Civics

Abbott. Montana Government: Detailed Treatment of State Government of Montana. Gazette Printing Company, Billings, Montana

Moore. Our American Citizenship (Detailed Treatment of Federal Government)—without Montana Supplement. Charles Scribner's Sons, San Francisco.

The teacher should also familiarize herself with books in use in Reading, Language, Health, and Science, bibliographies for which are suggested in the work of each grade

IV. Procedure

As a result of studies recently made to discover the grade placement of social science problems which would be most effective in Montana schools, an organization of the program for the eight years of the elementary schools is suggested. The following is a synopsis of the content in social science for each of the eight grades.

A. Grade subjects

1. Grade One: Things Round About Us

An enlargement of the beginning pupil's own experiences to give him a sense of time, space, and distance; and an appreciation of his relationships with his immediate environment

2. Grade Two: The Broader Community Around Us

Broader experiences in working together in the community; some knowledge of primitive living; and explorations into the larger area of an expanded community

3. Grade Three: Living and Working Together

Good citizens working together in the community to secure food, clothing, and shelter, and to solve community problems; acquiring a knowledge of the help people get from plants and animals

4. Grade Four: Old World People Look for New Lands

Places, persons, and developments from the beginning of travel and exploration down to and including the discovery of America; the struggle of Europeans for the new continent; and a picture of the area that became the United States of America

5. Grade Five: The Country in Which We Live

Places, persons, and developments in the progress of our nation, stressing, at the fifth grade level, the geography of the regions that invited the migrations of our pioneers; particular attention given to Montana

6. Grade Six: People Everywhere, A World-wide Community

Places, persons, and developments in the process of world civilization traced from its beginnings to the present time, with stress on the backgrounds of American life and on our relationships with the countries of Europe, and with the Republics of Latin America

7. Grade Seven: People from Many Lands Form a New Nation. Democracy in the Making.

A closer study of the geography of the United States and of the institutions that developed within that area up until the time of the Civil War; our dependence upon other regions of the earth and our relations with the people occupying them; emphasis on the period of forming our government and on constructive citizenship

8. Grade Eight: The Nation Becomes a World Power. Democracy at Work.

Places, persons, and developments which show the growth of the United States through large social movements down to the present day, stressing constructive citizenship and our nation's part in a war world

B. Unit work sheets

In each grade the subject matter which should receive attention centers around several problems, each of which is indicated as a unit of study. Large work sheets are in preparation for distribution to Montana teachers which will aid them in organizing the subject-matter materials of the individual units, and in discovering the correlations through which all the subjects of the elementary school contribute to an understanding of the unit. Six of these work sheets are already available for the intermediate grades and others will be distributed as soon as possible. Teacher participation is necessary in the making and remaking of these work sheets if they are to have the greatest possible value for modern schools. The teachers of the State are urged to make full use of these work sheets, not only to present the subject-matter under the present plan, but to discover new applications within the plan, and changes and improvements in the plan itself.

C. How to develop a unit

1. Preliminary study

If the teacher has not taught a unit before and has had little chance to assemble material, she should study the unit carefully at least a month before the time she plans for the group to begin working on it. She should first read in the handbook the introductory statement about the unit, objectives which may be set up, and the factual knowledge which it is reasonable to expect children to acquire. She should then study the unit work sheet and check the activities which the equipment of her room and her library will permit her to carry out. She must not expect to do everything suggested on the work sheet, since in each unit many more activities are suggested than any group could possibly carry out. If there are several grades in the room, the teacher should study the units that the other grades will be studying at the same time to discover to what extent the work of a grade unit will correlate with units being studied in the other grades, so that in some of the activities several groups or grades can be working together. (See Correlation Chart, page 28). The teacher then checks her library to discover what reading materials are available. These do not all need to be within the reading ability of the grade, as the more difficult stories can be read to the group by the teacher or by other children. If the teacher has any of the books listed in the bibliography of the grade, she will find some material. She will probably find material also in readers

and other books which were formerly basal texts and which are still available in the school. If the teacher discovers she has very little material available for the unit, she must attempt to secure additional material. The teacher may wish to leave the obtaining of much of this material to the children themselves after work on the unit is begun. This is a splendid way to arouse interest in the problems of the unit and to use the skills of language, reading, and writing. The teacher must be sure of the availability of the materials, however, so that pupil time will not be lost following unproductive leads.

2. How to get materials

- a. Requisition two or three books if the library fund is not exhausted; also a few art and construction materials
- b. Discover sources of free and inexpensive material which can be ordered (many county superintendents and teachers have lists of available free and inexpensive materials)
- c. Inventory the resources of the community—some materials can be borrowed
- d. Arrange with another teacher or school to exchange materials
- e. Borrow books and material from the county or city library
- f. Get help from the county superintendent
- g. Look through old magazines for pictures and descriptions
- h. Assemble inexpensive handwork materials such as boxes, cardboard, paints, and other items (see list, page 270)
- i. Consult professional magazines
- j. Consult merchants, local historian, county agent, and other resourceful people
- k. Consult the list of government bulletins, State College bulletins, and other agencies (see lists, pp. 320, 467)
- l. Ask for help from the State Superintendent of Schools, from the nearest normal college, and from other teachers

3. Approach

The teacher should plan an interesting approach to the new unit so that it will not appear to the pupils to be a task assigned them to do just because the teacher wishes it done. The approach should always arouse the interest of the pupils in the new unit and should offer a logical motive for taking it up for study. While the subject matter of the individual units will suggest possible approaches, a number of general devices are listed here which might be useful to the teacher:

- a. A visitor to the class, who tells about some aspect of the subject about which the new unit centers
- b. A report by a member of the class dealing with some phase of the subject matter of the unit
- c. The beginning of a collection pertaining to the new unit
- d. Pictures of activities accompanying the unit
- e. A class excursion to investigate some aspects of the new unit
- f. Report of vacation experiences which relate to some aspect of the unit
- g. New books or other reading material suggesting the unit
- h. Class discussion led by the teacher on some phase of the unit
- i. An approach through science: an experiment dealing with some aspect of the unit

V. Measuring Results

It will be necessary for the teacher and the children to continually evaluate their work in the social studies in order to determine what knowledge, attitudes, appreciations, and ideals are growing out of their experiences in group living. The true value of courses in social studies cannot be measured in factual knowledge alone, but factual knowledge forms the basis from which attitudes develop. Evaluation of the achievements growing out of the study of each unit should be an integrated part of the work of the unit itself. Teacher-made tests and standardized tests should be used from time to time to measure factual knowledge. A brief list of publishers of testing material is suggested here. Teachers should procure catalogs and literature from these publishers describing the tests, in order that tests may be selected which meet individual and school needs.

Some publishers and distributors of testing materials:

Bureau of Publications, Teachers College, Columbia University,
New York

Extension Division, The State University of Iowa, Iowa City

Gregory Test Service, Cincinnati, Ohio

Kansas State Teachers College, Emporia

Public School Publishing Company, Bloomington, Illinois

University of Chicago Press, Chicago

World Book Company, Yonkers-on-Hudson, New York

VI. Bibliography*

Melvin, A. Gordon. *Method for New Schools*. The John Day Company, New York, 1941, pages 261-292

Ritter, E. L., and Shepherd, L. A. *Methods of Teaching in Town and Rural Schools*. The Dryden Press, Inc., New York, 1942, pages 323-401

VII. Films and Film Strips

The film, sound and silent, is a powerful ally of the teacher when used as an integral part of classroom instruction. It surmounts many barriers to learning and visualizes instruction in many areas of the curriculum; it can be used to introduce or initiate a new unit of study; to direct attention to selected phases of the unit; to enrich the content by opening up related areas for investigation; and to review or visualize the main ideas of subjects already covered.

The film can be called a "teaching tool." As such, in common with all tools, its use will depend upon the skill of the person manipulating it. The teacher should preview the film and relate its content to the unit and to the whole curriculum. By previewing, a plan for group and individual study and activity will be suggested. This will make the film experience a functional learning activity and not an entertainment or extra-curricular project.

The types of films which are most widely used in Montana are 16-millimeter films, for use with the sound-on-film projector, and film strips for use with the tri-purpose projector. The Montana State Library of Visual Aids in Education which operates in the office of the State Superintendent of Public Instruction, at Helena, issues an annual catalog of the 16-millimeter films available from that source. Teachers should always refer to the latest catalog of the library, since the library is growing rapidly and titles previously listed are sometimes dropped. In the list which follows, films now available in the library are suggested for use with each of the social studies units.

There are no film strips available from the Montana State Library of Visual Aids in Education at this time; however, many school districts and counties are building up their own libraries of film strips. In the list of the social studies units which follows, several film strips are suggested for use with each unit. The film strips listed are obtainable from the Society for Visual Education, Inc., 100 E. Ohio St., Chicago, Illinois. For other sources from which these and other film strips may be obtained, the teacher should consult the U. S. Office of Education, Washington, D. C., Pamphlet No. 80, 1941, "Success of Visual Aids for Instructional Use in Schools."

*See Bibliography for Social Science, page 31

Some Western dealers in film strips are:

American Film Corporation, 6227 North Broadway, Chicago, Ill.

Audiofilms Co., 6109 Grove St., Oakland, Calif., and P. O. Box 27, South Berkeley, Calif.

Central Camera Co., 230 S. Wabash Ave., Chicago, Ill.

Conrad Slide and Projection Co., 709 E. 8th St., Superior, Wis.

Howard Hill, 6109 Grove St., Oakland, Calif.

R. C. Mulnix Sound Systems, 310 15th St., Denver, Colo.

W. M. Welch Mfg. Co., 1515 Sedgwick St., Chicago, Ill.

VIII. Bibliography for Films and Film Strips

A. Grade One

1. Unit One: Things Round About Us: Pets
 - a. Motion picture films
 - (1) The Adventures of Bunny Rabbit 17
 - (2) Three Little Kittens 194
 - b. Film strips

(1) The Burro Bf—131	(3) Dogs Cc—400 & Bf—127
(2) Cats Bf—51 & Bf—83	(4) Ponies Bf—123 & Bf—133
2. Unit Two: Things Round About Us at Christmastime
 - a. Film strips

(1) Winter Scenes Ar—490	(2) Niagara Falls Ar—60
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3. Unit Three: People Round About Us at School
 - a. Motion picture films
 - (1) School Days in the Country 144
 - b. Film strips

(1) Learning Cc—361	(2) The New Book Cc—372
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4. Unit Four: People Round About Us at Home
 - a. Film strips

(1) Good Morning Cc—353	(3) Modern Lullaby Cc—368
(2) Kitchen Duty Cc—360	(4) Mother's Roses Cc—371
5. Unit Five: Things Round About Us Outdoors
 - a. Motion picture films

(1) Robin Red Breast 65	(2) Gray Squirrel 67
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 - b. Film strips

(1) Beaver Bf—148-149-150	(3) Butterflies Bj—25-26
(2) Birds Bi— 26- 33- 43	(4) Deer and Elk Bf—59-66-69-136
6. Unit Six: Things We See in the Country
 - a. Motion picture films
 - (1) Farm Animals 52
 - b. Film strips

(1) Cows Bf— 15-16-65	(3) Horses Bf—139-141
(2) Chickens Bf—138	(4) Pigs Bf— 49

B. Grade Two

1. Unit One: Working Together in Vacation
 - a. Film strips
 - (1) Pals Cc—378 (2) Playing Cc—381-382-383
2. Unit Two: Things Animals Do (See First Grade, Unit One)
 - a. Motion picture films
 - (1) Black Bear Twins 55
 - (2) How Nature Protects Animals 62
 - (3) Animals of the Zoo 162
 - (4) Animals in Modern Life 232
 - b. Film strips
 - (1) Coiled Rattlesnake Bf—46 (2) Porcupine in Tree Bf—151
3. Unit Three: Winter Holidays
 - a. Motion picture films
 - (1) Crystal Formation in Nature's Workshop (snow, ice, rocks) 102
 - b. Film strips
 - (1) Winter Play Ia—4-12-19 (2) Winter Scenes Cc—345-374-375
4. Unit Four: How the Indians Lived
 - a. Motion picture films
 - (1) Navajo Children 33 (3) Navajo Indians 164
 - (2) Eskimo Children 161
 - b. Film strips
 - (1) Cherokee Ag—56-58-61 (2) Navajo Ag—83-84-85
5. Unit Five: Books and Games for Winter Days
 - a. Film strips
 - (1) Nursery Rhymes Cc—770-771-772-773-774-775 (2) Fables Cc—538-539-540-541
6. Unit Six: Rides and Trips We Can Take
 - a. Motion picture films
 - (1) An Airplane Trip (Los Angeles to Salt Lake) 118
 - b. Film strips
 - (1) To the Country Ar—153-224-238
 - (2) On a Train Ax— 3- 4- 11
 - (3) To Glacier Park Ai—131-137-146-151-158
7. Unit Seven: Things That Come to Life in the Spring
 - a. Motion picture films
 - (1) Song Birds of the North 126 (2) Gardening 212

C. Grade Three

1. Unit One: Good Citizens at Home and at School
 - a. Motion picture films
 - (1) Once Upon a Time (Safety and Courtesy) 25
 - (2) School Days in the Country 144
 - b. Film strips
 - (1) The Flag Jc—2
2. Unit Two: How We Work Together in Our Community
 - a. Motion picture films
 - (1) The Policeman 36

- b. Film strips
 - (1) Irrigation Ar—341
 - (2) Road Upkeep Ar—17-338
 - (3) Schools Ar—524
- 3. Unit Three: Animal Stories
 - a. Motion picture films
 - (1) Beach and Sea Animals 49 (2) Black Bear Twins 55
 - b. Film strips (See First Grade, Unit One; Second Grade, Unit Two)
- 4. Unit Four: How We Get Our Food, Clothing, and Shelter
 - a. Motion picture films
 - (1) Rip Goes to Town (An electrified dairy farm) 87 (4) Meat and Romance 134
 - (2) Shelter 107 (5) People of the Congo 227
 - (3) Trees and Homes 120 (6) Animals in Modern Life 232
 - b. Film strips
 - (1) Food Ah—2-39-95-268-235
 - (2) Clothing Ah—60-61-63-64 (3) Shelter Ah—129-224-225
 - Ah—127-168
- 5. Unit Five: Travel and Transportation
 - a. Motion picture films
 - (1) The Horse 97
 - (2) Problems of Flight 165
 - (3) The Development of Transportation 61
 - b. Film strips
 - (1) Air Ax—14-16-38 (3) Railroads Ax— 3- 5-23
 - (2) Animals Ax—20-21-25 (4) Water Ax—13-19-22
- 6. Unit Six: Friends We Find in Books
 - a. Film strips
 - (1) Heidi Cc—354 (2) Ambition Cc—335
- 7. Unit Seven: Playing and Growing Together
 - a. Motion picture films
 - (1) Bicycling with Complete Safety 37 (3) Proof of the Pudding (Food and nutrition) 127
 - (2) Safety in the Home 38 (4) Our Teeth 175
- 8. Unit Eight: Friends We Find Outdoors
 - a. Motion picture films
 - (1) Birds of Prey 28 (3) The Frog 72
 - (2) Animal Life 48 (4) The Life of the Bee 76
 - b. Film strips
 - (1) Animals Bh—24-43-51-57 (3) Flowers Bc—242-153-343
 - (2) Birds Bi—21-27-34-49 (4) Insects Bj— 14- 17-112
- D. Grade Four
 - 1. Unit One: Trade and Travel Today and Long Ago
 - a. Motion picture films
 - (1) Children of China 68 (2) Our Earth 108
 - b. Film strips (See Second Grade, Unit Six)
 - (1) Today Ax—5-11-17-77 (2) Long Ago Aa—132-135-138

2. Unit Two: Early American Colonists and Their European Homelands
 - a. Motion picture films

(1) Colonial Children	90	(2) A Planter of Colonial Virginia	222
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 - b. Film strips

(1) Plymouth	Aα—388-389-390-391	(3) Virginia	Aα—30-31-32-33
(2) Salem	Aα—394-395-396-397	(4) French	Ar—369-370
3. Unit Three: Why the French and English Wanted Canada, our Nearest Neighbor
 - a. Motion picture films

(1) Wings of Youth (Coast to Coast in Canada)	172
(2) Flatboatmen of the Frontier	223
(3) Westward Movement	224
 - b. Film strips

(1) Water Route	Am— 1-34-60-61
(2) Territory	Am— 3-40-47-58
(3) Resources	Am—12-14-15-17-40-59
4. Unit Four: This Country of Ours
 - a. Motion picture films

(1) Our Government	77	(3) Work of Running Water	157
(2) The Declaration of Independence	95	(4) Our Constitution (two reels)	230
 - b. Film strips

(1) National Parks	Ai—19-25-31-195	(3) Western States	Ar—153-156-217-486
(2) Eastern States	Ar—78-98-99-188-189	(4) Southern States	Ar— 35- 44-255

E. Grade Five

1. Unit One: A New Nation Takes Root Along the Atlantic Coast of North America
 - a. Motion picture films

(1) Old Age and Family Security	168
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 - b. Film strips

(1) Early Colonists	Aα—47-240-252	(2) Washington	Aα—15-17
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2. Unit Two: The New Nation Reaches Across the Appalachians
 - a. Motion picture films

(1) The River	125	(3) Story of Steel	196
(2) Pioneers of the Plains	160	(4) Story of Wheat	243
 - b. Film strips

(1) Western Travel	Aα—295-297	(2) War of 1812	Aα—286-332
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3. Unit Three: The Nation Grows Bigger and Stronger
 - a. Motion picture films

(1) Our Louisiana Purchase	176-177
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- b. Film strips
- | | | | |
|----------------------|--------------------|--------------------|--------------------|
| (1) Lincoln | Aa—188-189-191-194 | (3) Civil War | Aa—310-311-321-371 |
| (2) Early Industries | Aa—93-118-123-125 | (4) Transportation | Ax—26-29-55-67-69 |
4. Unit Four: Land of Contrasts, The Great West
- a. Motion picture films
- | | | | |
|-----------------|----|-----------------------|-----|
| (1) Boulder Dam | 13 | (2) The Orange Grower | 235 |
|-----------------|----|-----------------------|-----|
- b. Film strips
- | | | | |
|-----------------------|------------|-------------|------------|
| (1) Desert-irrigation | Ae—39 | (3) Rivers | Ai—482 |
| | Ah—156 | | Ar—255 |
| (2) Roads | Ar—124-445 | (4) Plowing | Ah—150-445 |
5. Unit Five: The Roof of the Nation, Montana
- a. Motion picture films
- | | | | |
|------------------------|----|-------------------------|-----|
| (1) The Cattleman | 18 | (3) Farmers and Defense | 122 |
| (2) Power and the Land | 98 | (4) Story of Wheat | 243 |
- b. Film strips
- | | | | |
|-----------------|------------|---------------------------|----------------|
| (1) Farms | Ar—224-238 | (3) Two Blackfeet Indians | Ag—20 |
| (2) Great Falls | Ar—734 | (4) Cooke City Highway | Ar—733-736-737 |
6. Unit Six: How the Nation Acquired Far Possessions
- a. Motion picture films
- | | | | |
|----------------------|----|------------|-----|
| (1) People of Hawaii | 31 | (2) Alaska | 153 |
|----------------------|----|------------|-----|
- b. Film strips
- | | | | |
|------------|------------|------------|--------------------|
| (1) Alaska | Af—1 to 15 | (2) Hawaii | As—331-334-342-350 |
|------------|------------|------------|--------------------|

F. Grade Six

1. Unit One: The World and Early Civilizations that Developed Upon It
- a. Motion picture films
- | | | | |
|----------------------------|----|-----------------------------|-----|
| (1) The Earth's Motion | 3 | (4) The Solar Family | 236 |
| (2) Work of the Atmosphere | 53 | (5) The Earth's Rocky Crust | 238 |
| (3) Children of China | 68 | (6) The Weather | 239 |
- b. Film strips
- | | |
|--|----------------------------|
| (1) Seven Wonders of the Ancient World | Ab—29-30-31-32-33-34 |
| (2) Egypt | Ab—100-101-121-135-136-137 |
2. Unit Two: Civilization Comes to the Peninsulas of Southern Europe
- a. Motion picture films
- | | |
|--|-----|
| (1) Turkey (Turkish City and Village scenes) | 135 |
|--|-----|
- b. Film strips
- | | | | |
|------------|-------------------|----------|--------------------|
| (1) Greece | Ab—95-124-125-126 | (2) Rome | Ab—129-130-131-132 |
|------------|-------------------|----------|--------------------|
3. Unit Three: The Middle Ages
- a. Film Strips
- | | | | |
|-------------|---------------|-------------|----------------|
| (1) Castles | Ab—99-103-104 | (3) France | Al—1-2-3-4-5 |
| (2) England | Al—927-939 | (4) Germany | Al—650-651-652 |

4. Unit Four: The British and French Empires

a. Motion picture films

(1) London	21	(3) Pigmies of Africa	85
(2) Great Britain	24	(4) London Fire Raids	146

b. Film strips

(1) England	Al—975-976-979	(4) Australia	Az—1-9-10-13
(2) Canada	Am—47-49-50	(5) France	D—1-2-3-4-5-6
(3) India	Ak—65-68-67	(6) Norway	Al—55-60-59

5. Unit Five: Russia and Her Neighbors

a. Film strips

(1) Russia	Al-373-374-375	(3) Finland	Al-22-23-40-47
(2) Sweden	Al-326-414-431	(4) Norway	Al-55-60-59

6. Unit Six: Germany and the Countries of Central Europe

a. Motion picture films

(1) Watussi of Africa	228
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b. Film strips

(1) Germany	Al—623-630-633	(3) Belgium	Ad—62-77-78
(2) Holland	Ad—7-8-9-14	(4) Switzerland	Ad—41-67-71

7. Unit Seven: Twenty Good Neighbors, Latin America

a. Motion picture films

(1) Argentina	26	(5) Americans All	156
(2) Land of Mexico	38	(6) Hill Towns of Guatamala	170
(3) Columbia (technicolor)	150	(7) South American Cruise	185
(4) Brazil (technicolor)	151	(8) Venezuela	215

b. Film strips

(1) Mexico	Au—42-51-57	(3) South America	An—19-34-35-146 147-157-165
(2) Central America	Ao—38-58-70		

G. Grade Seven

1. Unit One: How Europe Discovered a New World

a. Film strips

(1) Columbus	Aa—48-247-248	(3) The French	Aa—246
(2) The Spanish	Aa—242-250	(4) The Dutch	Aa—335-244

2. Unit Two: How Europeans Made New Homes in America (See Fourth Grade, Unit Two)

a. Motion picture films

(1) New England Fishermen	19	(2) Colonial Children	50
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3. Unit Three: How A New Nation Was Formed (See Fifth Grade, Unit One)

a. Motion picture films

(1) Our Bill of Rights	241
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b. Film strips

(1) Al—13-93-94-95-50

4. Unit Four: How People Lived in the Early Days of the New Nation (See Fifth Grade, Unit One)
 - a. Motion picture films
 - (1) Our Monroe Doctrine 166-167
 - b. Film strips
 - (1) Aα—129-102-103-118-120-138-150
5. Unit Five: How Americans Learned Better Ways of Living
 - a. Motion picture films
 - (1) Steel 121 (2) Growth of Cities 233
 - b. Film strips
 - (1) Aα—123-125-137-143-149

H. Grade Eight

1. Unit One: How the People Met New Problems in Their Government
 - b. Film strips
 - (1) Aα—80-161-164-402-381-189
2. Unit Two: How Science and Invention Helped Our Industries Expand
 - a. Motion picture films

(1) What's in a Dress	27	(4) Nursing	148
(2) Romance of Glass	100	(5) Story of Steel	196
(3) Story of Coal	101	(6) Refrigeration	244
 - a. Film strips
 - (1) Aα—106-107-143-123-128
3. Unit Three: How Becoming a World Power Brought New Problems
 - a. Motion picture films
 - (1) American Sea Power 181
 - b. Film strips
 - (1) Aα—356, Ab—10-70
4. Unit Four: New Tasks That America Faces in the Twentieth Century
 - a. Motion picture films

(1) Peiping—Land of Kahn	182	(3) The Battle Is In Our Hands (First World War and Depression)	214
(2) First Line of Defense	188		
 - b. Film strips
 - (1) Aα—27, At—11-26-16-15
Ax—37-38
5. Unit Five How We Live and Govern Ourselves in a War World
 - a. Motion picture films

(1) Boulder Dam	13	(5) Farmers and Defense	122
(2) Finding Your Life Work	39	(6) Tanks	200
(3) Chemistry (Textiles, Dyes)	29	(7) Bomber	203-207
(4) Health in War	117	(8) Working for Defense	169
 - b. Film strips
 - (1) Ab—141-142, Jα—20-18-17-16, Ax—75-87

GRADE ONE

I. Introduction

When the six-year old child comes to school, he has a background: a store of information which he has acquired from his own experiences. It is the responsibility of the first-grade teacher to introduce the child to further experiences which will add to the information he already has, and to help him acquire skills by which his field of experience will be broadened and his information made more permanent. As he learns to work with other children, he acquires social experiences and participates in the activities in which others engage. As he learns to read, he acquires a source of vicarious experience, in that he participates in activities which others have recorded in books. As he learns to write, he records the things he does and in this way makes them more permanent for himself and makes them more accessible to others. Since no two children will have exactly the same background of experience when they come to school, the teacher will capitalize upon these differences in conversation and in discussion periods, and in allowing each child to contribute to the understanding of the group.

The program for the first grade is built around "Things Round About Us" and the children progress very gradually from the things they already know about and understand to experiences which are new and untried. It is assumed that for the first few weeks little reading will be undertaken from books. The pre-reading period, however, will definitely lead up to the experiences which the child is going to meet in his first books. The six units that comprise the year's program are:

- A. Things round about us, pets
- B. Things round about us at Christmastime
- C. People round about us at school
- D. People round about us at home
- E. Things round about us outdoors
- F. Things we see in the country

II. Some books in which the child will find stories about the subjects of the units are:

A. Texts

Hildreth, Meighen and others. The Easy Growth in Reading Series. This series consists of three pre-primers: Mac and Muff, Tom and Don, and Going to School; two primers: At Play, and Fun in Story; and two first readers: I Know a Secret, and Good Stories. The John C. Winston Company, Chicago.

- B. A number of sets or series of first-grade reading books which definitely supplement some or all of the units in the Montana first-grade program

- Atwood, Thomas. *Neighborhood Stories*. Ginn and Company, San Francisco, 1942
- Burkhard, Chambers, Moroney. *Health-Happiness-Success Series*. Lyons and Carnahan Company, Chicago, 1936
- Charters, Smiley, Strang. *Health and Growth Series*. From Morning Till Night. The MacMillan Company, Chicago, 1936
- Craig, Burke. *New Pathways in Science*. We Look About Us. Ginn and Company, San Francisco, 1941
- Frasier, Dolman. *The Scientific Living Series*. Primer: *Sunshine and Rain*; First Reader: *Through the Year*. L. W. Singer Company, Chicago, 1937
- Quinlan, Myrtle B. *The Quinlan Readers*. Pre-primer: *Winky*; Primer: *Day by Day*; First Reader: *To and Fro*. Allyn and Bacon, Chicago, 1939
- Rugg and Drueger. *Man and His Changing Society*. Ginn and Company, San Francisco, 1936
- Smith, Nila B. *The Unit Activity, Reading series*. Pre-primer: *Tom's Trip*; Primer: *At Home and Away*; First Reader: *In City and Country*. Silver Burdett and Company, Chicago, 1940
- Stone, C. R., and others. *Joyful Readers*. Pre-primer: *Fun for Tom and Jip*; Primer: *Joyful Stories*; First Reader: *What Fun*. Webster Publishing Company, St. Louis, Missouri, 1939
- Towse, Matthews, Gray. *Health Stories*. The John C. Winston Company, Chicago
- Wilson and Wilson. *Our Ways of Living*. American Book Company, Chicago, 1937
- Essentials of Everyday English*. Laidlaw Brothers, Chicago
- First Reader, Puzzle Pages*. McCormick Mathers Company, Wichita, Kansas
- This Way to Better Speech*. World Book Company, Yonkers, New York

C. Additional books which contain stories pertinent to the first-grade units:

- Craig, Burke, Babcock. *New Pathways in Science*. Primer: *We Want to Know*; First Reader: *We Find Out*. Ginn and Company, Chicago, 1941
- Elson, Gray, Runkel. *Curriculum Foundation Series*. Pre-primer: *Dick and Jane*; Pre-primer: *More Dick and Jane Stories*; Primer: *First Reader (Book I)*. Scott Foresman and Company, Chicago, 1936
- Gates, Bartlett. *The New Work Play Books*. Pre-primer: *Beginning Days*; Pre-primer: *Off We Go*; Pre-primer: *Now We Go Again*; Primer: *Jim and Judy*; First Reader: *Down Our Street*. The MacMillan Company, Chicago
- Hahn. *The Child Development Readers*. Pre-primer: *Who Knows*; Primer: *Reading for Fun*; First Reader: *Finding Friends*. Houghton Mifflin Company, San Francisco, 1939
- Leavell, Breckenridge, Browning, Follis. *The Friendly Hour Readers*. Primer: *Ben and Alice*; First Reader: *Playmates*. American Book Company, Chicago, 1936
- Merton, McCall. *Pupil Activity Readers*. Primer: *Bob and Jane*; *At Work and Play*. Laidlaw Brothers, Chicago, 1937
- O'Donnell, Carey. *The Alice and Jerry Books, Reading Foundation Series*. Pre-primer: *Here We Go*; Pre-primer: *Happy Days*; Pre-primer: *Rides and Slides*; Pre-primer: *Here and There*; Primer: *Day In and Day Out*; First Reader: *Round About*. Row Peterson and Company, San Francisco, 1936
- Storm. *Guidance in Reading Series*. Pre-primer: *Sue and Mickey*; Pre-primer: *Nip and Tuck*; Pre-primer: *Nip and Tuck at Play*; Primer: *Bob and Judy*; First Reader: *Good Times Together*. Lyons and Carnahan, Chicago

III. The First Grade Units

A. Unit One: Things Round About Us: Pets

1. Introductory statement: Children of this age have a natural interest in pets. This interest should be stimulated by observation of pets, visits to homes to see pets, bringing pets to school, discussing pictures of pets, and telling and reading about pets.
2. Objectives
 - a. To understand that pets are friendly, faithful, and loyal
 - b. To understand that pets deserve friendship and kindly treatment
 - c. To understand the life cycle of pets: They are first little, then they grow up, and finally they get old
 - d. To understand that pets adapt themselves to environment and to seasonal changes
 - e. To understand the family life of pets; the mother and baby relationship
 - f. To understand that many pets roam about over a considerable area and sometimes travel far afield
3. Factual knowledge which is pertinent to the solution of the problems of the unit
 - a. Facts of historical significance
The fact that many people have pets, some kept indoors and some outdoors; the fact that pets live and grow; they eat and sleep and have a life cycle of their own; the fact that they respond to the treatment given them; they have means of expressing their wishes and their pleasure and displeasure; the fact that they do many interesting things naturally and can be trained to do many more
 - b. Facts of geographical significance
The facts that pets move about from place to place and that they know the locations of such things as the feeding dish or trough, the warm and cool spots, the stream or pond, the shed or doghouse, the way to the neighbor's, to the store, to the schoolhouse, and to the gate at the end of the walk
 - c. Facts of civic significance
The facts that pets may have family relationships and friendly or unfriendly relationships with others of their kind; that they play together, work together and have common experiences; that they admit the authority of human beings and even of others of their own kind; that they can communicate certain emotions to each other; and that most of them are gregarious and enjoy companionship

B. Unit Two: Things About Us at Christmastime

1. Introductory statement

The work of this unit should be planned so that it terminates at Christmastime, except for possibly one day after the holidays when the children may bring toy presents to school or at least discuss the gifts they gave and received. This unit offers particularly varied community contacts through home decorations, lighted store windows, merchandise displays, church and community programs and other community evidences of the holiday season. In a rural school, the Christmas activities of the older children, the school decorations, and the constant talk about the coming event serve as splendid motivations to bring the interest of the first graders to a high pitch.

2. Objectives

- a. To develop the true Christmas spirit
- b. To know and appreciate the story of the Nativity of Jesus
- c. To acquire an appreciation of distance by discovering that the events of the first Christmas took place a long way off in a different kind of land
- d. To acquire an appreciation of time by discovering that the events of the first Christmas took place a long time ago
- e. To discover that Christmas means kindness to one another
- f. To acquire some understanding of the spread of Christianity and the methods of the observance of Christmas in other lands
- g. To cultivate appreciation of other racial groups and other classes

3. Factual knowledge which is pertinent to the unit

a. Facts of historical significance

That Christ was born in the stable of an inn in the town of Bethlehem, in Judea; that the mother of Jesus was named Mary; that a star or bright light shone in the heavens at the time of His birth. That there gathered about Him a group of followers who were the earliest Christians; that religion which grew from His teachings spread over the whole world, and is the religion which most of the people in our country believe in today; that Christian people count the years of their calendar from the time of His birth. That the birth of Jesus was a long, long time ago.

b. Facts of geographical significance

That the land in which Jesus was born is a long way from our country; that it was in a warmer climate and there was no snow in that country at Christmastime; that people came from other countries to see the baby and to bring Him precious gifts from their own lands; that some of these travelers came from a desert country and rode on camels; that many of the presents which are given today at Christmastime come from other parts of the country and from other lands.

c. Facts of civic significance

That Jesus taught the lesson: "Do unto others as you would like to have them do to you," and that this lesson if followed by everyone would make it possible for people to live together happily; that Jesus spent His life in helping other people; that in those days many lands were ruled by kings who had the power of life and death over their subjects; that a wicked king tried to find the baby so that he could do Him harm.

C. Unit Three: People Round About Us at School

1. Introductory statement

By the time first-grade children come to the study of this unit, they have been in school three or four months. School has now become a very important part of their lives, and school experiences are the subject matter for much of their conversation and activity. The teacher should recognize the difference between the reactions of children to other children and their reactions to the teacher or to other adults in the school. Even in very social school situations "The teacher does not step down from her position of teacher and take a position of equality with the children. This would not be honest. The teacher is stronger, more mature, of better judgment, of fuller knowledge."* The child comes to recognize the school as a place where the older and wiser people give their full time to introducing him individually, and with other children, to experiences which are new to him, but which grow largely out of former experiences which he has had.

2. Objectives

- a. To discover that in any group of people each individual yields some personal rights in return for membership in the group

*Melvin, A. Gordon. *Methods for New Schools*. The John Day Company, New York, 1941, page 265

- b. To discover that there are children who are farther advanced than the beginner; that older brothers and sisters, and even fathers and mothers, have all had school experiences; that the school is a permanent social institution
 - c. To discover, through attendance at school, directions and distances, and the relationship of these to the home and the school
 - d. To discover ways of getting along with other people
 - e. To discover ways of cooperating with others in the use of school tools, play equipment, and materials
3. Factual knowledge which is pertinent to the solution of the problem of the unit
- a. Facts of historical significance
The facts that children go to school and that older people have gone to school; that school is a progressive plan which provides for varying ages of children
 - b. Facts of geographical significance
The facts of the location of the school and its distance from the homes and community landmarks; that the experiences of the school lead out into certain physical areas in the community
 - c. Facts of civic significance
The facts that there is work to do at school which resembles the work which grown-up people do at home and in the community; that the people in the school are a social group comparable to other social groups in the community; that social groups have leaders; that members of social groups have individual privileges and duties; and also that the group has responsibilities

D. Unit Four: People Round About Us at Home

1. Introductory statement

Many primary teachers prefer to make the home unit the first unit of the first year and good reasons can be offered for so doing. There are, however, also good reasons for putting the home unit fourth in the sequence of first-grade units in the Montana program of social studies. Two of these reasons are: First, the readers which are being used as basal texts in most Montana schools at the time this course is planned, and much of the other first grade reading material in use in Montana, develop the first words in the first grade vocabulary through the use of stories about pets. For this reason the unit on pets is put first in this course to take advantage of this vocabulary cumulation. Much of the first-grade reading material in

use in the State places the school stories second to the stories about pets. This fact, coupled with the very great interest children develop in school shortly after they start to school and the strangeness has worn off, suggests that the school stories might be read after the pet stories. The Christmas unit is introduced next because of its seasonal interest and the wealth of reading material available; and the home unit is introduced fourth. Second, it seems universally true that most children are unable to appraise home situations as such till they have been away from home a little. After they have made the new contacts of the school, they are in position to regard the home in the light of their new experiences. Many of the reading sequences in use in Montana at this time develop a considerable reading vocabulary before they introduce home experiences as such. The teacher will need to recognize that there is great variety in the home experiences of the different children in her group.

2. Objectives

- a. To acquire the meaning of the terms older, younger, baby, grown-up.
- b. To acquire the meaning of the terms near, far, a long way
- c. To understand that every member of a family must help all the others
- d. To understand that every member of the family has certain duties he must perform
- e. To realize the permanence of the family
- f. To know about birthdays

3. Factual knowledge which is pertinent to the unit

a. Facts of historical significance

The facts that grandfathers and grandmothers came before fathers and mothers, and that fathers and mothers came before children; that there are older brothers and sisters and younger brothers and sisters in some homes; that father may have grown up in the same house, or that the child has never lived in any other house, or that the family has lived there just a short time; that certain articles at home belonged to father and mother when they were little; events which have happened within the home about which older people tell.

b. Facts of geographical significance

The facts of the location of the home and how to get there; facts of relative distance of the homes of other children and of community landmarks, facts established by observance of trees, streams, roads, surface features,

fences, and other landmarks seen daily between school and home; facts established by observation of the yard or farm, or the house itself, and of other buildings

c. Facts of civic significance

The facts that every member of the family has certain duties and responsibilities; that there are certain agreements or rules of the home having to do with punctuality, safety, the comfort of others, the care of property, cleanliness, and healthful living

E. Unit Five: Things Round About Us Outdoors

1. Introductory statement

The study of this unit is begun at the time the long Montana winter is beginning to break; and grass, buds, flowers, warmer days, and streams in the coulees invite children to explore the outdoors. Most of the information necessary to an understanding of this unit can be obtained by first-hand discovery and observation.

2. Objectives

- a. To understand that there is a cycle of seasons in Montana and that spring is the time of year when plant growth begins
- b. To understand that days will continue to get longer and warmer
- c. To understand that people in warm countries spend more time out in the open than people in cold countries
- d. To understand that man exercises many controls over nature
- e. To understand that people must work together to make these controls possible
- f. To understand that plants, animals, and people adapt themselves to seasonal changes

3. Factual knowledge which is pertinent to the unit

a. Facts of historical significance

The facts that as long as the oldest people can remember, Montana has had the same seasonal cycle; that there are many variations as to the month and time of the month when these changes are evidenced; that many things that people do are based upon the belief that the characteristics of the seasons will be reasonably true to form; that plants and animals, as well as people, anticipate seasonal changes

b. Facts of geographic significance

That in spring the days are getting longer and warmer; that trees, shrubs, flowers, and grass undergo marked

changes as a result of the warmth of spring; that spring does not come everywhere at the same time, that more rain falls in spring than at other times of year and that melting snow causes streams and rivers to flood; that animals shed their heavy coats in the spring; that spring is planting time for most plants; and that people will plan to spend more time out-of-doors

c. Facts of civic significance

That the work which people do to make spring planting possible is cooperative work; and that the farmer will be protected by laws so that he will be assured of the benefits that come from his labor; that birds build nests in the spring and prepare for raising a family

F. Unit Six: Things We See in the Country

1. Introductory statement

Children of first-grade level who live in the country have a natural interest in the things they see every day. Most children who live in town make trips to the country and town children find the life and activity of the farm interesting. Much Montana farming is of such a specialized type that children visiting a farm might see only wheat growing, only sugar beets, or only range cattle. If parents or teachers plan trips to farms it is hoped farms of the diversified type can be found.

2. Objectives

- a. To appreciate the importance of farming
- b. To understand that farming is one of the oldest occupations
- c. To know something about the crops that can be raised in Montana, and particularly in the region where the child lives
- d. To be able to recognize several growing crops such as corn, wheat, potatoes, sugar beets
- e. To understand that the farmer must depend upon the help of several people and agencies
- f. To understand how the farmer and merchant depend on each other

3. Factual knowledge which is pertinent to the unit

a. Facts of historical significance

That farming is a very old occupation; that the crops which are raised now have been raised for many, many years; that the domestic animals found on farms have been friends of man for many, many years; that there is a definite cycle in raising plants: preparing the soil, planting, care, harvesting; that horses and cows are first baby colts and calves and then grow up

b. Facts of geographical significance

That Montana is a cold state and that only those crops that like cool days and nights can be raised in Montana; that Montana is a dry state and only crops that can be watered or that do not require too much moisture can be raised in Montana; that since many farmers raise more than they use themselves, they ship grain and animals away by train and truck; that frost will kill many plants if it comes at certain times; that wind causes the crops to dry out; that the wind blows plowed soil; and that the farmer has special jobs which he does in each season of the year

c. Facts of civic significance

That there is interdependence between the farmer and other people such as: the merchant, the grain elevator man, the postman, the creamery man, the county agent, and the truck driver or railroad engineer; that farmers cooperate in using machinery, such as separators and combines; and sometimes in shipping livestock; that farmers must cooperate in fighting weeds and pests which destroy their crops

IV. Sample Development of a First-grade Unit. Unit Six: Things We See in the Country

This unit follows the unit "Things Round About Us Outdoors," and there are many possible approaches through "outdoors" to the "Country" unit. It is possible that the study of growing flowers suggested that the class should turn its attention to the farm where other growing things could be seen. Birds' eggs or baby birds might easily lead into an interest in baby chicks on the farm. An excursion to observe some phenomenon of nature might have led to a nearby farm where other things of interest were discovered. Approaching vacation might suggest to some child to tell of his experiences the previous summer on a farm. In a rural school, farm outdoor activities: the arrival of a new colt or calf, the filling of the reservoir, the shearing of sheep, or any one of many occurrences, could lead the class into an interest in the farm. The teacher must have provided all the materials she can find pertinent to the unit, and have clearly in mind the objectives, and the facts and information she hopes the group will be able to cover.

In the social science outlines on the unit work sheet the teacher finds her starting point. It is probably a point to which the approach has led most directly. It might be the topic "The Work of the Farmer," and she will discover discussion subjects suggested in the language applications which enlarge on this subject. The teacher has already located stories to be read which will bring

out facts about the farmer's work, and in the health suggestions it is discovered that there is an advantage to the farmer in working out-of-doors in the fresh air and sunshine; that there are dangers in farm work and that safety precautions must be taken.

In the unit work sheet there are many suggestions for hand-work: clay models of the farmer himself, of his horses, a tractor and a truck; garden tools made of tinkertoys, or pieces of tin cut out for shovels, hoes, and rakes, with small sticks serving as handles; a sand-table replica of the farm; sticks stuck in the sand connected with string for the fences or telephone line; buildings can be cut from paper or cardboard; cut-out animal pictures can be stood in the sand; and trees, gates, the pump and trough, the family car, left-over hay stacks may all be provided.

The farmers's work leads easily to the foods he is producing, and suggestions in each column contribute activities to a study of foods. Shelter for the family and for the animals is another outgrowth. A farm might be built on the floor, in a corner, on a large enough scale so that the buildings commonly found on a farm have distinguishable sizes and shapes: the house, the barn, the garage, corrals, a silo, and the grain elevator down by the railroad track. Windmills made of paper or wood can be set on a fencepost outside the schoolroom window.

The science column, on the work sheet, suggests the actual planting of seeds in windowboxes or in germination testers. Different kinds of farm crops can be discussed, but the accent should be on the type of farming most common in the community. A study of the science column on the work sheets, and of the science outline in the handbook, indicates ways of introducing animal life; the value of rain and sunlight to the farm; and harm that may come from wind, frost, and hail. In the activities suggested in the arithmetic column, children discover the need for the use of numbers: the number of days after the seeds are planted until the first sprouts are noticed. The days are marked off on a calendar and the class counts them. Counting seed grains, farm animals, rows of plants in the garden, and "stepping off" the length of garden rows for comparison, are number activities.

The teacher should plan ahead for a culminating activity which will hold the interest in the unit until the end of the time it is studied. This might be a dramatization of farm scenes; an exhibit of seeds and the plants that grow from them; a picture gallery of farm animals; an excursion; or one of the farm construction projects already discussed. As this is the last unit in the year, the pupils should carry away with them suggestions of farm observations and activities which might be possible during the summer.

GRADE TWO

I. Introduction

The program for the second grade is built around "The Broader Community Around Us," and provides an expansion of the experiences of the first-grade units. It is in this grade that great stress is placed upon working together. The Indian is introduced in this grade, both as a type of primitive life and as an interesting and colorful individual who can be seen now and then in most Montana communities. Children are becoming increasingly independent in reading and can themselves now find stories bearing on the units under study. The idea of research can be introduced early. To the second grade child, research merely means that when he wants to know about something, he should investigate all the possible sources of information he knows. The seven units for Grade Two are:

- A. Working Together in Vacation
- B. Things Animals Do
- C. Winter Holidays
- D. How the Indians Lived (Primitive People)
- E. Books and Games for Winter Days
- F. Rides and Trips We Can Take
- G. Things That Come to Life in the Spring

II. Some Books in Which the Child Will Find Stories About the Subjects of the Units:

- A. Texts in use at the time this course is published:
 - Buckley, White, Adams, Silvernale. The Road to Safety Series. In The Storm and Sunshine. American Book Company, Chicago, 1938
 - Hildreth, Meighen, Fulton, Henderson. Easy Growth in Reading Series. Along The Way. The Story Road. The John C. Winston Company, Chicago, 1940
 - Towse, Matthews, Gray. Health Stories. Book Two. Scott, Foresman & Company, Chicago, 1935
- B. A number of sets or series of second grade reading books which definitely supplement some or all of the units in the Montana second grade program:
 - Charters, Smiley, Strang. Health and Growth Series. Happy Days. The MacMillan Company, Chicago, 1936
 - Frasier, Dolman. The Scientific Living Series. Winter Comes and Goes. L. W. Singer Company, Chicago, 1937
 - Smith, Nila B. The Unit Activity Reading Series. Round About You. Silver Burdett and Company, Chicago, 1940
 - Puzzle Pages. McCormick Mathers Company, Wichita, Kansas
- C. Additional books which contain stories pertinent to the units:
 - Baker, Reed, Baker. The Curriculum Readers. Friends Here and Far-Away. Bobbs-Merrill, New York, 1938
 - Beauchamp, Crampton, Gray. Curriculum Foundation Series Science Stories. Book Two. Scott, Foresman and Company, Chicago, 1933

- Carpenter, Bailey, Baker. *Adventures in Science* (The Rainbow Series). With Bob and Don. Allyn and Bacon, Chicago, 1939
- Elson, Gray, Runkel. *Curriculum Foundation Series. Book Two.* Scott, Foresman and Company, Chicago, 1936
- Freeman, Storm, Johnson, French. *Child Story Readers. Magic Stories.* Lyons and Carnahan Company, Chicago, 1935
- Gates, Bartlett. *The New Work Play Books. We Grow Up.* The MacMillan Company, Chicago
- Gehres. *Every Day Life Series. Book Two.* The John C. Winston Company, Philadelphia
- Grady, Klapper, Gifford. *Childhood Readers. Stories for Everyday.* Charles Scribner's Sons, Chicago, 1939
- Hanna, Anderson, Gray. *Curriculum Foundation Series. Everyday Life Stories. Susan's Neighbors.* Scott, Foresman and Company, Chicago, 1936
- Heffernann, Hill. *Highway to Reading Series. The Broad Road.* Lyons and Carnahan Company, Chicago, 1939
- Horn-Wickey. *Progress in Reading. More Adventures. Making New Friends.* Ginn and Company, Chicago, 1940
- Huber, Salisbury, O'Donnell. *The Wonder-Story Books. It Happened One Day.* Row Peterson and Company, San Francisco, 1938
- Kinscella. *Stories in Music Appreciation. Storyland.* University Publishing Company, Kansas City, 1939
- Knox, Stone, Maister, Noble. *The Wonder World of Science. Book Two.* Charles Scribner's Sons, Chicago, 1940
- Lewis, Rowland, Gehres. *New Silent Readers. New Friends.* The John C. Winston Company, Philadelphia, 1936
- Nemec. *Democracy Readers. Enjoying Our Land.* The MacMillan Company, New York, 1940
- O'Donnell, Carey. *The Alice and Jerry Books (Reading Foundation Series). Down the River Road. Friendly Village.* Row Peterson and Company, San Francisco, 1936
- Pennell, Cusick. *The Children's Own Readers. Book Two.* Ginn and Company, Chicago, 1936
- Reynolds, Neville. *Reading for Enjoyment Series. Book Two.* Noble and Noble, New York, 1938
- Smith, Nila B. *The Unit-Activity Reading Series. Round About You.* Silver Burdett and Company, Chicago, 1935
- Storm. *Guidance in Reading Series. Friends About Us.* Lyons and Carnahan, Chicago, 1940
- Suzzalo, Freeland, McLaughlin, Skinner. *Fact and Story Readers. Basal Book Two.* American Book Company, Chicago, 1940
- Teeters, Heising. *Early Journeys in Science. Book 1 (Second half).* J. B. Lippincott Company, Chicago, 1931
- Yoakam, Veverka, Abney. *Laidlaw Basic Readers. Book Two.* Laidlaw Brothers, Chicago, 1940

III. The Second Grade Units

A. Unit One: Working Together in Vacation

1. Introductory statement

When the child comes back to school in the fall, he has been away from school three months and during that time he has had varied experiences in the home and in the com-

munity; therefore, this is an ideal time to give him an opportunity to tell about his experiences and to contribute to the group understanding of "working together;" the child has possibly begun to discover the interdependence of members of the family, and the necessity of making his own adjustments to the activities of his home and his immediate environment.

2. Objectives

- a. A knowledge of the physical environment of the child's own home
- b. A knowledge of the history, stories, and traditions of members of his family and immediate friends
- c. A knowledge of the customs, ways, and standards of behavior of his home
- d. An understanding of the kinds of work that are carried on in his home or by members of his family
- e. An understanding of what he himself can do to help out in his home
- f. An understanding, through working and living with others, of living in such a way that the welfare of the family group is promoted

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts which the child may have learned about his family during his vacation association with them; what the family name means and its probable origin, the original nationality or race of the founders of the family; how long the family has lived in the community in which it now lives; facts about members of the family who live at a distance and are seen only occasionally; friendly relationships between the family and others in the community; facts as to the history, stories, and traditions about the members of the family; facts about employees or employers of members of the family; and of others who contribute to the concept of "working together"

b. Facts of geographical significance

How the home is adapted to the climate of the region; improvements that could be made to make the home more comfortable; how the family occupation depends upon climate, location, and soil conditions; the facts of the family domain—if a farm: streams, hills, woods, distance from a shopping center, distance from a road, from a railroad, distance from school, church, post-office, and other important locations; facts pertaining to types of homes suitable to the climate

c. Facts of civic significance

Facts which indicate the interdependence of the several members of the family group; household rules and procedure, dictated by custom; the work which each member of the family does; family cooperation for special needs or occasions; some facts about the use of money in buying and selling; facts about wages or allowances

B. Unit Two: Things Animals Do

1. Introductory statement

In the first grade, the children studied a unit on pets, and in the third grade there is a unit on animal stories. To permit a broad correlation among these grades the three units dealing with animals come at approximately the same time of the year. Since the second grade unit follows a unit which shows people working together, a natural approach might come from a suggestion that in many ways animals have relationships which are similar to those people have. In developing the subject, "Things Animals Do," emphasis should be placed on animal acts which show the adaptation of animals to their living conditions. It is very natural that children of this grade level will accept the stories of the things that animals do as evidences of their intelligent planning. Whenever possible, however, the teacher should build the broader concepts of natural adaptation to environment.

2. Objectives

- a. To understand better the life cycle of animals
- b. To understand the adaptation of animals to the region in which they live
- c. To understand relationships existing among animals and between animals and man
- d. To discover similarities and differences between animal life and human life
- e. To develop respect and kindness toward animals, and a knowledge of how to care for them

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

The difference between domestic and wild animals; how animals become domesticated; the fact that animals show courage, fear, love, and exhibit instinctive behavior on many occasions; the fact that animals are born; that baby animals grow up and in time become old and die; that in the past there were different kinds of animals which are now extinct; that Montana prairies

were formerly covered with buffalo and antelope which are now nearly extinct; that an animal's coat sometimes changes in color and in texture through a yearly cycle

b. Facts of geographical significance

That many animals migrate to other places as the seasons change; that some animals hibernate in winter; that animals from other parts of the world are strange to us and that our animals would be strange in other parts of the world; that each animal is happier in his own home; that animals and birds who migrate South in winter do so because it is warmer there; importance of climate in animal life

c. Facts of civic significance

How animals help people in their homes; how animals cooperate in families, herds, and flocks; that most animals are gregarious and like company; strange uses man makes of animals, "The seeing eye" dogs in war, and on mountain passes; carrier pigeons, animals which hunt for man; how trained animals cooperate; the circus and the zoo

C. Unit Three: Winter Holidays

1. Introductory statement

In Montana, the mid-winter months do not encourage much outdoor activity, and this is an ideal time to devote to experiences which the children have in reading and to talk about the lives of famous people. Doubtless, many birthdays of pupils are given notice as they occur, and this might serve as an approach to this unit which is largely a study of people through an observance of their birthdays. Christmas has already had considerable attention in the first grade, but the observance of Christmas correlates through the entire school. New Year's Day might be studied as the birthday of the year. Other birthdays which fall in January and February are those of Benjamin Franklin, Franklin D. Roosevelt, Abraham Lincoln, and George Washington. Valentine's Day is also an interesting observance in February.

2. Objectives

- a. To develop further an appreciation of the spirit of Christmas
- b. To understand that birthdays of friends and of family members deserve recognition and the expression of good wishes
- c. To understand that birthdays of national leaders are occasions when people pause to think of their achievements and their greatness

- d. To recognize Valentine's Day as an occasion on which we send greetings and presents to people we like
 - e. To recognize in the examples of the men studied that determination and perseverance will overcome handicaps
3. Factual knowledge which is pertinent to the solution of the problems of the unit
- a. Facts of historical significance

Facts about the first Christmas (see First Grade, Unit Three); biographical facts about Franklin, Franklin D. Roosevelt, Lincoln, and Washington; the difficulties which each of these men had to overcome—Franklin, poverty and difficulty of securing an education; Roosevelt, a fight against paralysis; Lincoln, poverty and lack of formal schooling; Washington, the power of Britain and the apathy of many Americans; the reason for observance of St. Valentine's Day; the fact that the country in which we live owes much to the leadership which it has had, and that people living today owe much to men who have lived before us

- b. Facts of geographical significance

The facts of varied observances of Christmas in many lands; what we mean by the new year and some facts about the seasons; some facts about the places where Franklin and Washington lived, and facts about the pioneer country of Lincoln; the fact that February is the shortest month in the year

- c. Facts of civic significance

The fact that Jesus spent his life going about among people and doing good; the contributions to our national life of Franklin, Roosevelt, Lincoln, and Washington, in that they tried to make life better for other people; an understanding of what holidays are and why the people agree to celebrate them; the celebration of St. Valentine's Day as a time when people express their liking for each other

D. Unit Four: How the Indians Lived

- 1. Introductory statement

In the first grade, and in the earlier units of the second grade, the pupils have been studying about home and community life. They have an opportunity in Unit Four to learn something about how a primitive people lived. Any one of many peoples may provide the subject matter for a study of primitive life. The American Indian has been chosen for this study because of our first-hand information about the environment in which these people lived,

and because some of their customs can still be observed in many parts of Montana. There are few states in which children have such an excellent opportunity to study at first hand the facts of primitive life as they have in Montana. A glance at the correlation chart, page 28, will indicate that this unit correlates closely with the third-grade unit, "How We Get Our Food, Clothing, and Shelter," and the fourth-grade unit about the early American colonists. Each of these units comes at about the same time of the school year.

2. Objectives

- a. To realize that the Indians living in Montana were here long before the white man came, and that the country all belonged to them
- b. To understand the nature of their primitive life; how it resembled ours today and how it differed from ours
- c. To understand that the Indians had tribal organizations with chiefs as leaders, and that the rules which the chiefs made were obeyed by all
- d. To understand that invention, discovery, and education have contributed to improving our type of living over that of the Indians
- e. To understand that the social inheritance of one age is handed down to the ages which follow

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

The finding of Indian tribes in Montana by the earliest white explorers; the names of two or three Montana tribes; how the Montana Indians built their homes, how they secured their food and their clothing; how they fought, traveled, hunted, sang, played, and danced; how they were able to communicate with each other by speaking and by signs; facts about the records the Indians kept; facts about their weapons and tools; facts about their use of animals, both domestic and wild; facts about their religious beliefs; facts about their medicines and health; facts about the use of fire

b. Facts of geographical significance

Some understanding of the area which the Indians occupied before the white man came, and of the comparative area and location of the Montana reservations today; facts of Indian occupancy of the region where the child himself lives; means of travel and distances Indians could travel in a day; Indian knowledge of how to

adapt himself to environment: how he lived in rain, snow, cold, and wind; what the Indian thought about the sun, moon, and stars; how Indians crossed rivers, mountain ranges, prairies; how they varied their living in different seasons

c. Facts of civic significance

Facts about the Indian family, and the tribe; how the Indians cooperated in securing food, clothing, and shelter; the work which the men did, the women, the children; how babies were named; rules which all must obey; what the Indians used for money; their relationships with other tribes; their relationships with the early white men; tribal officers: medicine men, chiefs; provision for training young boys to be warriors and hunters; provisions for training girls in household duties and in sewing, tanning, and work about the lodges; how food was shared by all; how the warriors protected the women, children, and old men

E. Unit Five: Books and Games for Winter Days

1. Introductory statement

This unit is introduced in the wintertime when children are anxious to find something to do indoors. The approach growing out of the Indian unit studied previously might easily be the similarity between some aspect of Indian life and aspects of life of other peoples, real or imagined. Many of the friends found in books and games are imaginary people. Children must get enjoyment from an interest in and a tolerance of imaginary people but must acquire a sense of the difference between the real and the imagined characters in stories.

2. Objectives

- a. To learn to discriminate between true stories and "make-believe" stories
- b. To get a better understanding of the meaning of history
- c. To find pleasure in reading of the achievements and exploits of people who lived long ago
- d. To find pleasure in reading of the achievements and exploits of people who live far away
- e. To discover, through reading, how people have worked together to achieve certain ends
- f. To discover, through reading, more about the interdependencies of human beings
- g. To find pleasure in the achievements and exploits of "make-believe" people; fairies, brownies, pixies, and personified animals

- h. To find pleasure in reading about trees, flowers, animals, and all the manifestations of nature
 - i. To find pleasure in playing together
3. Factual knowledge which is pertinent to the solutions of the problems of the unit
- a. Facts of historical significance

Facts about the lives of famous people, and about interesting things which these people did; facts that show how people lived long ago: lake dwellers, cave men, tree dwellers, cliff dwellers, and Indians; facts that can be established to give the child a concept of history as differentiated from stories of fancy; facts about the achievements of boys and girls of the past
 - c. Facts of civic significance

Facts that show how people have to work together to attain certain aims; facts of cooperative effort everywhere; facts of the rewards of kindness and fair play; facts of helpful living, of courtesy, and of pleasant relations between people; the rules by which games are played

F. Unit Six: Rides and Trips We Can Take

1. Introductory statement

Taking a trip is a time-honored school device used by teachers to give children a picture of distant places and earlier times. The trip is frequently taken imaginatively after reading descriptions of the places to be visited, or hearing stories from people who have been to those places. The taking of actual trips is coming more into vogue as a school practice. These trips, of course, cover only short distances and have usually very definite objectives.*

The reading material which is available in Montana schools at the time this course of study is printed is rich in stories and descriptions of trips. There are trips which city children make to the country, and trips which country children make to the city. Both of these offer splendid opportunities for the children to observe how the other half lives. Trips and rides give children an elementary concept of communication and transportation as it is today. This reading material may deal with rides in wagons, cars, trains, boats, and airplanes, which form starting points for many types of experience.

*See pages 14-17

2. Objectives

- a. To enlarge the thinking of the children in regard to direction and distance
- b. To develop an understanding of modes of transportation and communication today in comparison with those of the past
- c. To develop the ability to observe new and strange places, and to describe the things seen
- d. To acquire an understanding of differing modes of life which develop in different environments
- e. To understand that many people must work together to make rapid transportation possible

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts of the development of means of transportation: man walking, horse, wagon and stage, train, boat, automobile, airplane; facts of some famous trips in history which the children can imitate; facts about the development of railways, highways, and airports in the child's own community; facts about trips of early settlers and pioneers in the community

b. Facts of geographical significance

Facts of direction, distance and space; facts of time as applied to travel; facts about the mode of life of people who live in the places visited, either actually or imaginatively; facts about the places which may be reached by the busses or trains which pass through the child's own community, or the airplanes which fly overhead

c. Facts of civic significance

Facts about the building of railways and roads; that many people must work together to make their completion possible; names of nearby communities; an understanding of what constitutes a community; facts that show that rapid transportation and communication make it possible for people who live at a considerable distance to be members of the same community; facts which show that the postman, the sheriff, the highway patrolman, the health officer, and others who work for the welfare of the people must take trips into all parts of the community

G. Unit Seven: Things That Come to Life in the Spring

1. Introductory statement

This unit correlates closely with first grade unit Number Six, "Things We See in the Country," and third grade

unit Number Eight, "Friends We Find Outdoors." The approach to Unit Seven from the unit preceding it, "Rides and Trips We Can Take," might be through a trip into the country, through a short explorative class journey about the environs of the school where evidences of spring are noticed, or through reports of children who come by car or bus to school, of pussywillows, robins, receding snowbanks, and other suggestions of spring seen along their way to school. In most schools the unit will be studied during the latter part of April and May. During these months spring compels the notice of boys and girls throughout the State.

2. Objectives

- a. To understand that there is a cycle of seasons in Montana and that spring is the season when things come to life
- b. To understand that some countries do not have distinct seasonal changes as Montana has
- c. To understand that in some very cold regions plants have little growth at any time, and in some very warm, moist countries, plant growth is continuous
- d. To understand that there is a cycle in the life of plants and animals
- e. To understand that perennial flowers come up of themselves each spring but that annuals must be planted
- f. To develop a genuine interest in natural history
- g. To understand how plants and animals adapt themselves to their environment
- h. To acquire ability to observe keenly
- i. To acquire the foundations for a scientific attitude

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

That Montana has seasonal changes and that plants, animals, and people adapt themselves to them; that spring is the beginning of the life cycle of most plants; that certain varieties of plants have been grown in the child's own community for many years; that men who came to Montana more than a hundred years ago reported seeing many of the plants and animals which we have today; (Lewis and Clark first reached the country that is now Montana, in the spring of the year 1805)

b. Facts of geographical significance

That many countries do not have the distinct changes of season that we have in Montana; that some countries are cold all the time and some are hot all the time; that plants and animals in these countries adapt themselves

to their environment; facts of the migrations of plants and animals; facts of the life story of perennial and annual plants, and of animals; the relationship between rainfall and plant growth; the spring temperature changes

c. Facts of civic significance

That baby animals and birds appear in the spring and become members of animal and bird families; that many plants and animals depend to a large extent upon man and that man depends upon plants and animals; facts of community cooperation to eradicate weeds and pests, to care for animals and preserve plant and animal life; facts of seasons; melting snow, rainfall, frost coming out of the ground; facts about hibernating animals coming to life in the spring; farm-home facts: such as, new grass appearing, chickens wanting to set

IV. Development of a Sample Second Grade Unit

A. The approach (See General Suggestions on, "How to Develop a Unit," page 475)

The unit chosen for suggestive procedures is Unit Four, "How the Indians Lived". There are a number of possible approaches to this unit from Unit Three, "Winter Holidays". The approach might be through Washington's experiences with the Indians in the French and Indian War, or through the many similarities of the frontier life of Lincoln to the life of the Indian. The approach might be through the study of the year and the seasons, as primitive life was more dependent upon seasonal changes than we are today.

B. Unit suggestions in the course of study

In this course of study (page 502), the teacher will find a brief introduction to the unit; the objectives which it is hoped a study of the unit will develop; and important historical, geographical, and civic facts which it is reasonable to expect second-grade children might acquire from a study of the unit

C. The unit work sheet

If the teacher gives attention first to Social Science, center columns, she will find that the outline suggests many aspects of Indian life. If she wishes to develop the subject, "The Home of the Plains Indians," she will find information describing the Indian home or lodge: what it was made of; how it was ventilated; how it was kept warm; its decorations and the arrangement of the furniture and possessions inside the lodge. We might find interesting questions as to the location of lodges in the camp; why camps were moved; what conveniences Indian homes had and what they lacked.

In the bibliography the teacher will find listed many books telling about Indians. It would be difficult for her to provide all of this material, but if a few of these books are available, she

will find reading material which her group will find useful. In the "Art and Handwork" column, the teacher will find suggestions for a drawing of an Indian tepee showing its decorations, and for drawing things to be seen about the camp. Possibly the class could start, early in the unit, planning a large mural for a culminating activity for the unit, in which all should participate. The teacher will find suggestions of subjects for figure drawing, for making a book of Indian homes using cut-out letters on the cover. Construction paper tepees may be made and the decorated linings for them. Furnishings for the lodge may be made, such as lazy-backs and Indian suitcases. Small tepees might be carved from soap or wood, or modeled from clay or plaster-of-Paris. In the science column, the teacher will find suggested questions about how the Indians killed buffalo to get skins for their tepees; about how they kept food in their camps; about their use of fire in their homes; and about the tools they had for tanning and sewing the buffalo hides; questions about how they kept clean and what their day-by-day living was like.

Applications of Language. The teacher will discover many ways in which the subject matter of the unit will furnish exercises in language skills: Conversations about Indian homes; reproductions about tanning skins; the suggestions for getting stories from people who have been in Indian tepees; reports to the class by individuals or committees who have been studying a certain aspect of Indian home life; a dramatization of a domestic scene; letters to people who have personal knowledge about Indians; a pictograph story; a bulletin-board announcement of the home-life dramatization; and the making of a book on Indian subjects.

It is an easy step from Indian homes to the next topic, "Living as a Family": The work which each member did in the Indian family group; how babies were named; how food was secured; and how the children spent their time. This subject of family living can also be followed through Social Science, Art and Handwork, Science, Language, Numbers, and Music and Recreation. The last mentioned column, Music and Recreation, is rich in suggestions of subjects which will help picture the life of the Indian family. Other Social Science subjects which can be expanded through all the columns of the work sheet are, "How the Indian Travelled," "How the Indians Communicated with Others and Kept Records," and "The Weapons and Tools Which the Indians Used." For whichever part of the outline the teacher wishes to use, some reading material should be made available. A study of the bibliography column on the unit work sheet will help in the location and selection of this material.

GRADE THREE

I. Introduction

In the third grade, boys and girls get an increased understanding of the interdependence of people and groups of people who work together in the community. The community widens in this grade from the home and the school, to the larger area and the larger groups that comprise the community of a city street or section, a village or town, or a rural district. Most of the units of this grade grow directly out of beginnings already made in the first and second grades. It is particularly necessary that, beginning with this grade, the teacher make a close correlation between the social studies and science, since a problem which has great importance in this and in later grades is to discover how people have developed their modes of living to suit their environment. The units which comprise the year's program are:

- A. Good Citizens at Home and at School
- B. How We Work Together in Our Community
- C. Animal Stories
- D. How We Get Our Food, Clothing, and Shelter
- E. Travel and Communication
- F. Friends We Find in Books
- G. Playing and Growing Together
- H. Friends We Find Outdoors

II. Some Books in Which the Child Will Find Stories About the Subjects of the Units Are:*

A. Texts

Buckley, White, Adams, Silvernale. *In Town and Country*. American Book Company, Chicago, 1938

Fowles, Jackson, Jackson. *Healthy Bodies*. The John C. Winston Company, Chicago, 1936

Hildreth, Meighen, Fulton, Henderson. *Enchanting Stories, Level 2*. The John C. Winston Company, Chicago, 1940

Hildreth, Meighen, Fulton, Henderson. *Faraway Forts, Level 1*. The John C. Winston Company, Chicago, 1940

Smith, J. Russell. *Home Folks*. The John C. Winston Company, Chicago, 1934

B. A number of sets or series of third grade reading books which definitely supplement all or some of the units in the Montana third-grade program

Atwood, Thomas. *Neighborhood Stores*. Ginn and Company, San Francisco, 1933

Burkhard, Chambers, Moroney. *Health Stories*. Lyons and Carnahan, Chicago, 1936

Craig, Burke. *Our Wide, Wide World*. Ginn and Company, San Francisco, 1933

*See also bibliography of books and magazines for children which is included in the Course of Study for Elementary Science, pages 424-425

- Charters, Smiley, Strang. *Good Habits*. The MacMillan Company, New York, 1936
- Frazier, Dolman. *The Seasons Pass*. The L. W. Singer Company, Chicago, 1937
- Quinlan, Myrtle Banks. *Busy World*. Allyn & Bacon, San Francisco, 1939
- Rugg and Krueger. *The First Book of the Earth*. Ginn and Company, San Francisco, 1936
- Smith, Nila B. *Near and Far*. Silver Burdett & Company, Chicago, 1940
- Stone, C. R., and others. *Joyful Trails*. Webster Publishing Company, St Louis, 1939
- Towse, Matthews, Gray. *Health Stories, Book Three*. The John C. Winston Company, Chicago
- Wilson and Wilson. *Ways of Living in Many Lands*. American Book Company, Chicago, 1937

C. Additional books which contain stories pertinent to the third grade unit

- Baker, Reed, Baker. *Friends Around the World*. Bobbs-Merrill, New York, 1938
- Carpenter, Bailey, Baker. *With Jane and Paul*. Allyn & Bacon, San Francisco, 1939
- Beauchamp, Crampton, Gray. *Curriculum Foundation Series Science Stories, Book Three*. Scott Foresman and Company, Chicago, 1933
- Craig, Burke, Babcock. *Our Earth and Sky*. Ginn and Company, San Francisco, 1941
- Dopp, Pitts, Garrison. *Now and Long Ago*. Rand McNally Company, Chicago, 1935
- Elson, Gray, Runkel. *Curriculum Foundation Series, Book Three*. Scott Foresman and Company, Chicago, 1936
- Freeman, Storm, Johnson, French. *Wonder Stories*. Lyons and Carnahan, Chicago, 1935
- Gates, Bartlett. *Wide Wings*. The MacMillan Company, New York
- Hahn, Julia. *Meeting Our Neighbors*. Houghton Mifflin Company, San Francisco, 1939
- Hanna, Anderson, Gray. *Centerville*. Scott Foresman and Company, Chicago, 1936
- Horn-Wickey. *Following New Trails*. Ginn and Company, San Francisco, 1940
- Huber, Salisbury, O'Donnell. *After the Sun Sets*. Row, Peterson and Company, San Francisco, 1938
- Kinscella. *The Man in the Drum*. University Publishing Company, Kansas City, 1939
- Knox, Stone, Meister, Noble. *The Wonder World of Science, Book Three*. Charles Scribner's Sons, San Francisco, 1940
- Leavell, Breckenridge, Browning, Follis. *Friends to Know*. American Book Company, Chicago, 1936
- Lewis, Rowland, Gehres. *The Wonder World*. The John C. Winston Company, Chicago, 1936
- McLester, Hill. *Let's Read*. The Augsburg Publishing Company, Inc., Nashville, 1936
- Merton, McCall. *Here and Away*. Laidlaw Brothers, Chicago, 1937
- Nemec. *Your Land and Mine*. The MacMillan Company, New York, 1940
- O'Donnell, Carey. *If I Were Going*. Row, Peterson and Company, San Francisco, 1936
- Pennell, Cusick. *The Children's Own Readers, Book Three*. Ginn and Company, Chicago, 1936

- Reynolds, Neville. Reading for Enjoyment Series, Book Three. Noble and Noble, New York, 1938
- Ringer, Downie. A Travel Book. J. B. Lippincott Company, Chicago, 1940
- Smith, Nila B. Near and Far. Silver Burdett & Company, Chicago, 1935
- Storm, Grace. Neighbors and Helpers. Lyons and Carnahan, Chicago, 1940
- Suzzalo, Freeland, McLaughlin, Skinner. Fact and Story, Book Three. American Book Company, Chicago, 1930
- Teeters, Heising. Early Journeys in Science, Book 2 (First Half). J. B. Lippincott Company, Chicago, 1931
- Yoakam, Veverka, Abney. Laidlaw Basic Readers, Book Three. Laidlaw Brothers, Chicago, 1940

III. The Third Grade Units

A. Unit One: Good Citizens at Home and at School

1. Introductory statement

It is possible that this is the first time the children have been introduced to the term, "Good Citizens". The idea of cooperation, of working together, has been present in nearly every unit studied, but in this unit the children discover definitely that working together results in that type of home and school helpfulness which constitutes good citizenship. The teacher must recognize that citizenship is not a remote goal which pupils will reach when they are old enough to vote. Children are citizens. Their rights are guaranteed by many laws, and they have many of the privileges which grown people have. As is always the case in a democracy, privileges carry responsibilities with them, and children must discover that they have definite responsibilities in the school and in the home.

This unit comes at the beginning of the year when it is easy for the children to remember their participation in full-time home experiences. The return to school, however, re-opens for each child all the activities of the school and the attendant opportunities to assume his part of the responsibility for their success.

2. Objectives

- a. An understanding of the term, "citizen," as "one who belongs". In this unit the meaning is confined to belonging to the home and to the school
- b. An appreciation of the privileges of home membership, and also of the responsibilities each member has to the group
- c. An appreciation of the privileges of school membership, and also of the responsibilities each member has to the group
- d. An appreciation of the area or region served by the school as distinguished from areas served by other schools

- e. An understanding, on the part of the child, of the history and traditions of his school
 - f. An understanding of the fact that grown people who are now prominent citizens of the larger community were once citizens of the school
 - g. An understanding of how rules of conduct developed within the home and the school as the results of a need and a desire for social control
3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

The significance of the term, "citizen," throughout history; the facts of school history and tradition that contribute to an understanding of the value of the school to the community; the facts of the history and tradition of the family and the home.

b. Facts of geographical significance

Facts of the area served by the school; particularly those facts whose understanding makes for a better appreciation of the service of the school to the community

c. Facts of civic significance

Facts of the meaning of the term, "citizen;" the types of cooperation that are expected in the home and in the school; the types of social control which experience indicates are valuable in the home and in the school; knowledge of rules the community has set up to govern the operation of the school—rules such as, the days the school will be in session and the hours; holidays which will be observed; provisions for busses or transportation to and from the school, the plan for noon lunches, the plan for hanging up clothing; cooperative plans for raising and lowering the flag, for using tools and equipment, for entertaining visitors, for keeping records, and for many other school activities, for which the community, the teacher, and the pupils establish a pattern

B. Unit Two: How We Work Together in Our Community

1. Introductory statement

The approach to this unit from the one which precedes it, "Good Citizens at Home and at School," might be through any of the aspects of cooperative effort on which good citizenship depends. This unit is an enlargement of Unit One, in that it continues good citizenship into the larger community, from the citizenship practices studied formerly in the home and in the school. This unit correlates closely with the second grade unit, "Working Together in Vacation."

2. Objectives

- a. To understand the interdependencies of people and agencies within the community
- b. To understand the history and tradition of the community
- c. To understand the physical environment of the community
- d. A knowledge of the customs, ways, and standards of behavior in the community
- e. An understanding of the kinds of work that are carried on in the community, and of the contributions of different families and groups
- f. An understanding of what the child himself can do to help the community

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the early history of the community, how it got its name, how streets or roads were named, what the early houses were like, who the first people were who came to the community; how the local industries started; what the Indians used to do in or near the community; famous people who grew up in the community; facts about the first railway, the first automobile, the first airplane; facts about old buildings still standing and about how places of interest in the community became interesting; facts about the men who served in the first World War, and the men who are serving in this war

b. Facts of geographical significance

How climate and the nature of the soil affect the life of the community; what natural resources the community has; the location of rivers, hills, streams, forests; the location of nearby communities and their comparative size; the location of roads, highways, railroads, and points of interest; the location of churches, schools, important buildings, and the homes of friends

c. Facts of civic significance

How the people in the community make a living; how each person depends on others; how public officials, such as school board members, police or constables, highway patrolmen, and public health officials, function; how people join themselves into groups such as church groups, recreational groups, lodges, unions, and cooperatives; facts about the postoffice and the mail carrier

C. Unit Three: Animal Stories

1. Introductory statement

This unit correlates very closely with first grade Unit One, and second grade Unit Two, and in rural schools the first, second, and third grades may work out many of the common aspects of these units together. This third grade unit has a wider scope than the others, since the animals are not necessarily pets—they may be circus animals, range animals, or wild animals—and the stories need not necessarily be about things the animals do. If the teacher becomes fearful that there will be too much repetition in this unit, she should remember the very great interest children have in animals, the time that has elapsed since the former units were studied, and the new understanding which the third grade children can contribute to the study of the subject from their reading and from first-hand experiences. Birds may be included in this unit.

2. Objectives

- a. To understand that animals inhabited the earth long before man
- b. To understand how evidences from prehistoric times are accepted by history
- c. To understand the probable processes by which animals were domesticated
- d. To understand that animal life has wide distribution over the earth
- e. To know how animals adapt themselves to their environment
- f. To understand that most animals are gregarious and live together in families, flocks, or herds
- g. To realize that in many ways animals cooperate with each other
- h. To realize that animals are very necessary to man

3. Factual knowledge which is essential to the solution of the problems of the unit

a. Facts of historical significance

Facts about prehistoric animals and how we know that they lived on the earth; facts about people who are able to find evidences of prehistoric animal life through finding skeletons and fossils; facts about the domestication of animals; facts about pictures and carvings of very early people, showing animals working and playing with man; facts about the life cycle of animals; facts about strange things that animals have been known to do; and about the things they may be trained to do

b. Facts of geographical significance

Facts about the different kinds of animals that are found in different regions, and facts that show how animals adapt themselves to meet seasonal changes; facts about animal migrations; facts about evidences of animal life near at hand: old buffalo wallows, beaver dams, badger holes, salt licks, water holes, gopher colonies, abandoned birds' nests; facts about man's attempts to keep his domestic animals: stables, corrals, fences, hobbles, tethers, pens; facts about strange animals; facts about animals in the circus and in the zoo

c. Facts of civic significance

Facts about animals working together to secure food (such as hunting in packs), to build shelters (birds' nests, beaver dams, muskrat houses), to secure protection; facts that show that most animals enjoy the company of their kind, and that many animals enjoy being with people; facts that show the interdependence of man and animals

D. Unit Four: How We Get Our Food, Clothing, and Shelter

1. Introductory statement

This unit comes at a time in the year when direct observation is not so easy, and when the warmth of indoors, books, pictures, and constructive activity are attractive to children. There is, however, a very natural approach to this unit through the unit on animals just completed, since animals give us many things that we eat, wear, and use in our homes. The unit correlates closely with the second grade unit about the Indians and primitive life, and with the fourth grade unit dealing with the early American colonists. For children who live in the country, much of the information necessary to this unit can be obtained at firsthand. It will be necessary, however, even for country children, to do considerable research in the reading materials which are available, to discover the all-time dependence of the human race upon these three factors.

2. Objectives

- a. To understand how primitive man provided himself with food, clothing, and shelter
- b. To understand how food needs vary with climate and season, and to know that certain foods serve certain purposes
- c. To understand that clothing needs are determined by climate, supply, occupation, and custom

- d. To understand that different types of shelter are needed in different climates
 - e. To understand the necessity today for cooperation in the production of food, clothing, and shelter
 - f. To understand how cooperation in conservation of food and clothing is necessary to win a war
3. Factual knowledge which is pertinent to the solution of the problem of the unit
- a. Facts of historical significance

Facts regarding the food, clothing, and shelter of primitive man, and of pioneers and early settlers in Montana; facts about earliest agriculture, and the domestication of animals; facts about the use of caves, trees, and lake dwellings for shelter, and the development of different types of houses; facts about the earliest houses still standing in the community, and about famous houses or buildings in the county and the State; facts about early use of goats and cows to supply milk; facts about the bringing of sheep and cattle into the community; facts about early home manufacture of clothing; facts about early gardens and field crops in the community

- b. Facts of geographical significance

Facts which show how food needs of people vary with different climates and seasons; how clothing and shelter needs vary with climate and season; unusual foods used by people in far-away lands; strange clothing and homes of far-away people; food, clothing, and building materials (lumber, stone, cement, zanolite, flax, plaster, shingles) which are produced in the county, in the State; how foods, clothing, and building materials are transported

- c. Facts of civic significance

How people cooperate in providing food, clothing, and shelter; how people are protected in the ownership of their homes; facts of the transition from home to factory of the manufacture of clothing; how people help each other build homes (neighborly help today, "barn-raising," and "house-raising" in the past); cooperation in production of food at harvest and threshing time; facts of cooperation through war agencies and the Red Cross to produce clothing, bandages, and soldiers' kits; facts of conservation of food

E. Unit Five: Travel and Communication

- 1. Introductory statement

Improvements in travel and communication have been potent factors in expanding the community. Unit Five is

introduced at this time because the third grade children are studying the enlarged community. The unit has natural approaches from the two units that precede it: "Animal Stories," and "How We Get Our Food, Clothing, and Shelter." Animals played an important part in early travel in this country, and still play an important part in many parts of the world. The securing of food and clothing and the materials for shelter have been the greatest stimulus to man's desire to travel to far places and to communicate with other people. Other approaches might be through trips children have made or the use of the telephone. The teacher should consult the Correlation Chart, on page 28, to discover the ways in which the materials of this unit apply to units which other grades are studying.

2. Objectives

- a. To understand how primitive man traveled from place to place and how he communicated with others at a distance
- b. To understand the development of means of travel and communication
- c. To understand how people can travel rapidly to distant places today
- d. To understand how messages can be sent to distant places, rapidly, today
- e. To understand how rapid communication helps people to work together, and how knowledge of what is happening in other places is necessary to modern living
- f. To understand how means of rapid travel make it possible for public officers to perform their duties
- g. To understand how means of travel and communication bind our nation together

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

The facts that land travel progressed from man on foot, to man riding animals, to wheels moved by man, then by animals, then by steam, electricity, and gasoline; that water travel progressed from man swimming to animals swimming, carrying man; to man propelling boats, to animals pulling boats; to boats propelled by wind, and boats propelled by power; facts about the development of transportation in the child's own community; facts about airplanes; facts about signals used by primitive man: flag signals, and signals and signs used by Indians; early picture writing; and the development of

writing, telegraph and telephone; facts about early mail service: the pony express, messengers, and the postal service; facts about early river travel in Montana

b. Facts of geographical significance

Facts about how to mail a letter, how to send a telegram, and how to call someone on the telephone; facts about rail travel in the community: where the trains go, the time they leave, how fast they travel, whether they haul passengers or freight; similar facts about busses and airplanes; facts about small boats on rivers and lakes in Montana; the names of railways in the community; and the names and numbers of highways; facts about automobiles, school busses, trucks, freight and tank trucks; facts that will help in the use of picture maps

c. Facts of civic significance

Facts which show how transportation helps the farmer, the grocer, the livestock raiser; how the radio helps the farmer and the farmer's family; how the telephone saves time for everybody and ties the community together; facts about how laws regulate travel speeds; how the government rations tires; facts about the time it takes people from a Montana rural community to get to the county seat, to the State Capital; how long it takes people from Montana to get to the nation's capital; facts that show that railways are really "bands of steel" that tie our country together

F. Unit Six: Friends We Find in Books

1. Introductory statement

This unit is readily approached through the unit which precedes it. It is natural, after the children have found that they can travel to distant places, that they will wish to know what the people are like they will see there. One of the ways to obtain this information is to read about these people in books. This unit correlates closely with the second grade unit, "Books and Games for Winter Days." While "make-believe" people will still have a place in the reading of this grade, children now should be developing an interest in real people who live in different parts of the world, and whose manner of living presents strange contrasts to life in Montana. Many publishers have attractive books which give the readers an understanding of the way other people live, by introducing boys and girls in foreign lands. Many of these books picture a visit of an American boy and a girl to a boy and a girl in the country studied, and in this visit the customs of the land are observed.

2. Objectives

- a. To realize that different types of civilizations have developed in different parts of the world
- b. To discover that people who live in distant lands are dependent on their environment
- c. To discover how people in distant lands live day-by-day
- d. To realize that people in all parts of the world have developed plans for living together on friendly co-operative terms
- e. To realize our dependence on people in distant lands and their dependence on us

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts which show some of the steps in the development of different civilizations; facts which show why people choose certain places for their homes; and facts that show the processes by which national customs and observances develop; facts acquired from study of pictures showing the homes, occupations, dress, and play of children in other lands

b. Facts of geographical significance

Facts which show that people living in distant lands are dependent on their environment just as people in Montana are dependent upon their environment; facts regarding the physical environment in which other peoples live; facts which show strange aspects of far-away countries which affect the lives of the people there

c. Facts of civic significance

The items of food, clothing, and other necessities, which we get from the people studied, and the things which they get from us; and the manner in which the need for these things makes for mutual interdependence; facts about the lives of other people which show that they work together for common good

G. Unit Seven: Playing and Growing Together

1. Introductory statement

This is a spring unit. Children are beginning to play out-of-doors, after a long winter spent mostly inside. Third grade children should be given many group games and group activities where sides are taken or where one group competes with another. Out of these activities an "esprit de corps" develops which is fundamental to the concept

of working together for the common good. This is a health unit, since growing depends upon proper food and proper living. A natural approach to the unit might be through studying the games of the children in far-away lands in the unit which precedes this one. Spring weather itself is an approach, as it invites children to come out-of-doors to play and grow.

2. Objectives

- a. A realization that in all the periods of history people have had games and enjoyed play
- b. A realization that people in other lands play games
- c. A growing interest in and proper attitude toward other people
- d. An interest in being healthy and growing big and strong
- e. The development of wholesome social relationships
- f. An interest in games and play

3. Factual knowledge which is pertinent to a solution of the problems of the unit

a. Facts of historical significance

The fact that primitive peoples played games; that the Greeks knew that there was a relationship between playing games and growing strong; that Indians played games and ran races, and that they realized the value of strong, straight bodies

b. Facts of geographical significance

Facts about games which are played by children in other countries; folk songs and dances which are part of the play of people in other lands; how to play travel games, and imitate trains, automobiles, and steamboats

c. Facts of civic significance

Facts which show the rights of other people and ways in which those rights can be respected; the fact that there is something interesting about everybody; and that it pays to cultivate friendships; that the opinions of older people are worthy of attention; facts which show how people can be helpful to each other; facts which show the value of fresh air and exercise in helping people to grow big and strong; how to play games; facts which show that it pays to play fair

H. Unit Eight: Friends We Find Outdoors

1. Introductory statement

Unit Eight correlates closely with first grade Unit Six, "Things We See in the Country," and second grade Unit Seven, "Things That Come to Life in the Spring," but covers a broader area. The first and second grade units

dealt largely with plants and animals, while the "friends" in this unit might be insects, fish, trees, streams, hills, clouds, stars, snowbanks, showers, and all other phenomena of nature.

The approach from the preceding unit is an easy and a natural one

2. Objectives

- a. A knowledge of the things that nature does
- b. An understanding of our environment
- c. An appreciation of our dependence upon nature

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about unusual phenomena: the coldest winter, the big flood, the great blizzard, the dry summer; facts of memorable happenings out-of-doors: the forest fire, the dust storms; facts of lumbering in the community; facts of unusual crops; facts of attempts at community improvement and beautification

b. Facts of geographical significance

Facts which we acquire from observation of our environment: water runs down hill, frost comes in September, sandy soils blow, some streams go dry in summer; which berries are good to eat and where they grow; the location of springs, meadows, game trails, wild flowers, coasting hills, chokecherry groves, the best fishing streams; facts about the seasons; the length of day and night, the moon's phases; how the stars indicate direction

c. Facts of civic significance

How people work together to conserve natural resources; how people can help nature and how nature helps people; laws to be observed, such as game laws, fire laws, weed eradication laws; facts of community gopher poisoning or jackrabbit drives

IV. Development of a Sample Third Grade Unit

A. The approach (See General Suggestions on "Approach to a Unit," page 476)

The unit chosen for suggestive procedures is Unit Four, "How We Get Our Food, Clothing, and Shelter." The preceding unit, "Animal Stories," suggests many approaches to the unit on, "How We Get Our Food, Clothing, and Shelter," since an important part of our food and clothing today come from

animals. Animals also supply many of the furnishings of our homes and in many parts of the earth supply the shelter itself.

B. Unit suggestions in the course of study

In this course of study, the teacher will find a brief introduction to each unit; the objectives which it is hoped a study of the unit will develop; and important historical, geographical, and civic facts which it is reasonable to expect third-grade children might acquire from a study of the unit .

C. The unit work sheet

On the unit work sheet, the teacher will find the subject developed under three distinct outlines: food, clothing, and shelter. These may be taken up in any order, and it is quite possible that the class will be unable to cover all the suggestions on the work sheet. Under "Foods" the teacher will find the divisions: bread and cereals, vegetables, fruit, milk, meat, and miscellaneous articles of food. Under these headings, sources of food are discussed; how food is produced; and how it is used and preserved.

In the art column, the teacher finds suggestions of color studies which can be made of fruits and vegetables. Drawings of sheep and cattle ranches, and of a farm at threshing time, show some origins of food. Drawings might also show the grain elevators and the beet loader, and the food in the grocery store and in the home. Fruits and vegetables may be carved, or modeled in clay. A splendid food activity would be a display of many kinds of food containers in a grocery store made of an orange crate.

In the science column, the teacher finds definite suggestions as to the care of all kinds of food: first by the farmer; then in transport; then by the grocer or deliveryman; and finally the care of food in homes. Cleanliness is given a great deal of attention, beginning with inspection of farm animals, then to cooling, and protection of food from flies, and other sources of contamination.

The language column suggests how the subjects of the unit will supply material for many language activities; conversations and discussions about why certain foods should be well-cooked, and about packaged foods. A trip to a grocery store might be planned, and courtesy lessons could be developed showing the cooperation between the grocer and the buyers. Pupils might make explanations of seasonal changes in diet, and tell stories about how cavemen, tree dwellers, and lake people got their food. Dramatization can center around the school store, harvesting scenes, bringing the first cattle to Montana, or Father Ravalli helping the

Indians plant seed. Letters might be written to the grocer and to the county health officers, or food advertisements might be answered. Records might be kept of food used at home or of farm production of such foods as, eggs, vegetables, and milk.

In the arithmetic column, there are suggestions as to type problems within the ability of mid-year, third-grade children. Sample problems are also given showing how food subjects, recipes, and production figures can be used in developing problems.

In the bibliography on the work sheet, the teacher will find a number of books dealing with the subject of the unit. While she will not have access to all of these, it is hoped that several books might be available to the children for reading about the subjects of the unit.

The teacher will find suggestions similarly developed for the subjects: food, clothing, and shelter. She should not attempt to do everything suggested in the unit, but let the resources she has at hand and the children's own interest suggest leads in the unit that can be most profitably followed.

GRADE FOUR

I. Introduction

It has been the custom in Montana schools to give the child a textbook in history for the first time when he enters the fourth grade. It would be unfortunate if the child should assume from this that he is just beginning the study of history and that all the history facts he has acquired heretofore are of no value. The fourth grade teacher should guard carefully against any possible development of this wrong concept. The child has been studying history: the history which he needed in solving all the problems he found in the first three grades. He found history facts in stories, in books, in conversation with older people, in pictures, and in many other daily experiences. In the fourth grade, he is going to continue learning history facts from these same sources, for having a history book in his hand will not relieve him of the necessity of seeking historical information wherever he can find it. The history textbook should make it possible for him to get his information more easily, because it furnishes him a point of departure for his explorations.

In the third grade, the child learned much about travel; in the fourth grade, he is going to follow the amazing travels of many interesting explorers and, as a result of the explorations of these men, the child will discover a new continent which is of vital importance to him, because this is the continent upon which this country of ours was established. The units which comprise the year's program are:

- A. Trade and Travel, Today and Long Ago
- B. The Early American Colonists and Their European Homelands
- C. Why the French and English Wanted Canada, Our Nearest Neighbor
- D. This Country of Ours

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III. The Fourth Grade Units

A. Unit One: Travel and Trade Today and Long Ago

1. Introductory statement

From units studied in the first three grades, the children have established fairly definite concepts of travel. In this unit, using their knowledge of travel today as a point of departure, the fourth grade children will go back to early times and read of the amazing feats of early travelers and explorers. The point might be raised that trade had little part in the travels of some of the explorers after Marco Polo, but the desire for trade was still the impelling motive: the need to find a short route to the East, so that men could bring back to Europe the new things to eat and to wear that the Crusaders had learned to like. It is difficult to determine at just what point the explorers who followed Columbus ceased to look for a new route to the East, and began instead to seek to discover facts about an amazing new continent.

2. Objectives

- a. To understand why Columbus and the explorers who followed him wished to reach India and China

- b. To know the names of some of the men who explored the American continent
 - c. To acquire a knowledge of the shape of the earth, and of the relative locations of the new world and the old world
 - d. To be able to locate on a globe: Europe, Asia, Africa, England, Spain, France, the Mediterranean Sea
 - e. To be able to locate on a globe or a map of the Western Hemisphere: North America, South America, Canada, Mexico, the West Indies
3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the achievements of Marco Polo, Prince Henry, Dias, Vasco da Gama, Leif Ericson, Columbus, Magellan, Ponce de Leon, Cortez, De Soto, John Cabot, Sir Francis Drake, Walter Raleigh, Cartier, Champlain, Americus Vesputius, Henry Hudson; facts about people who helped them: Ferdinand and Isabella, Queen Elizabeth; facts about the Crusades; facts about the discovery of the compass and the development of the belief that the earth was round; the fact that Columbus discovered America in 1492; facts about the early fur trade

b. Facts of geographical significance

Facts about Venice, China, The Holy Land, the Mediterranean Sea, Constantinople, India, Asia, Europe, Africa, Atlantic Ocean, France, Spain, South America, Florida, Mexico, the Mississippi River, England, North America, Virginia, the St. Lawrence River, Canada, the West Indies, the East Indies; facts about overland travel and ocean travel, caravans

c. Facts of civic significance

Facts about the founding of colonies, and how the people in these colonies worked together to get food, clothing, and shelter, and how they governed themselves; the fact that the European countries studied were ruled by kings

B. Unit Two: The Early Colonists and Their European Homelands

1. Introductory statement

Most teachers of geography are agreed that the first geography the child learns is the geography of his own home and community. In Montana, much of this is covered in the first three grades. After learning about the geography

of his immediate environment, the child learns about types of living, and how people everywhere adapt themselves to their environment. In Montana much of this is done in the fourth grade. From the historic viewpoint, the problem of this unit is to discover how the Spaniards, English, Dutch, Scandinavians, and French established colonies in the new world. A problem that is closely related, but is primarily a problem of geography, is to discover the way these people lived in their own countries before they came to America. This unit on colonization grows very directly out of the unit which precedes it, which deals with the exploration of the regions in which the colonies subsequently developed.

2. Objectives

- a. To understand how people lived in England, Holland, the Scandinavian Peninsula, and France at the time settlers from those countries began coming to America
- b. To appreciate the reasons that led to the settlement of the different colonies
- c. To know how the colonists lived and to appreciate the differences between their life and ours today
- d. To have some understanding of the regions in which the colonists settled

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the achievements of: Walter Raleigh, John Smith, Peter Stuyvesant, Miles Standish, John Winthrop, Roger Williams, Lord Baltimore, and William Penn; facts about the first permanent colonies: the Spaniards at St. Augustine, the English in Virginia, the French at Quebec; facts about famous Indians: Pocahontas, Powhatan, Massasoit; the date, "1607;" the introduction of slavery; the colonists' wars with each other and with the Indians; facts about the Mayflower: the first Thanksgiving; facts about pioneer life

b. Facts of geographical significance

Facts about England, France, Spain, Holland, and the Scandinavian Peninsula; facts about Florida, Virginia, Jamestown, Canada, Maryland, the Carolinas, and Georgia, New York (New Amsterdam), Plymouth, Massachusetts, Boston, Rhode Island, Connecticut, Pennsylvania, Kentucky

c. Facts of civic significance

Facts about the founding of colonies; how the people set up colonial governments, voted, and made laws;

facts about plantations: slaves, debtors, patroons, proprietors; facts about treaties with the Indians; freedom of religion

C. Unit Three: Why the French and English Wanted Canada, Our Nearest Neighbor

1. Introductory statement

As is the case in most of the units, the historical happenings studied in this unit are not considered merely as interesting isolated events worthy of study. The struggle between the French and the English is important primarily because it determined, to a large extent, how we live in America today, and how our near neighbors and friends, the Canadians, live.

2. Objectives

- a. To understand the differences between the French and the English
 - b. To know something of their struggle for the possession of Canada and of the heroism of the French and English fighters
 - c. To realize that the war between the French and English gave splendid training in frontier warfare to Washington and the future American soldiers in the Revolution
 - d. To realize that the war between the French and the English determined that the North American continent from the Rio Grande north should be predominantly English in language and ideals
 - e. To know something about Canada, our nearest neighbor, and to develop a friendly feeling toward her people
3. Factual knowledge which is pertinent to the solution of the problems of the unit
- a. Facts of historical significance

Facts about Marquette, Joliet, George Washington, Martha Washington, Sir William Johnson, Benjamin Franklin, General Braddock, General Wolfe, General Montcalm, Pontiac; facts about fur traders, wood rangers, Jesuit missionaries, the Ohio Company, leaden plates, block-houses and stockades, Fort Duquesne

- b. Facts of geographical significance

Facts about Mackinac, mission stations, the St. Lawrence river, the Ohio river, the Mohawk river, Mt. Vernon, the forks of the Ohio, Canada, Albany, Pittsburgh (Fort Duquesne, Fort Pitt), Quebec, Detroit, the Plains of Abraham

- c. Facts of civic significance

Facts about self-government within the English colonies; the French missionaries and the Indians; peace treaties,

government by "companies;" government in outlying settlements; Franklin's plan of union; the treaty between the French and English

D. Unit Four: This Country of Ours

1. Introductory statement

The purpose of the study of this unit is to give the child a general view of the separation of the colonies from England; of the attempts to establish a good form of government for the people of the new country; and of the nation which grew upon the foundations which were laid in the Revolutionary period

2. Objectives

- a. To understand why the colonists and England could not agree
- b. To understand the area which included the thirteen colonies as contrasted with the area of the United States today
- c. To know how the Revolutionary War was fought and some of the important events in the war
- d. To appreciate the sacrifices the Revolutionary heroes made and the hardships they suffered to gain their independence
- e. To understand that the Declaration of Independence left the American people without a government; that the Articles of Confederation were an unsatisfactory attempt at setting up a government; and that the Constitution became the permanent plan of government of our country

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about Samuel Adams, Patrick Henry, George Washington, Thomas Jefferson, George III, Lafayette, Burgoyne, Robert Morris, Nathan Hale, George Rogers Clark, John Paul Jones, Cornwallis, Nathaniel Greene, John Hancock; facts about the Stamp Act, the Boston Tea Party, the battles of Lexington and Concord, Saratoga, Valley Forge, Yorktown; July 4, 1776

b. Facts of geographical significance

Facts about Boston, New York, Philadelphia, West Point, Annapolis, and the places where important Revolutionary battles were fought; the location of Independence Hall; facts about "the Great Northwest"

b. Facts of civic significance

Facts about "taxation without representation;" the First

Continental Congress; the Declaration of Independence; facts which explain the terms "revolution," "piracy," "traitor;" the Second Continental Congress; the Articles of Confederation; the Constitution of the United States

IV. Development of a Sample Fourth Grade Unit

A. Unit One: Travel and Trade Today and Long Ago

1. The approach (See General Suggestions on "Approach to a Unit," page 476)

Since this is the first unit to be studied during the fourth year, there is no immediate approach from a preceding unit. It is natural in the fall of the year, however, for children to be talking about summer activities and trips. The fourth graders now have history texts in their hands and the first glimpse into the textbook will show them pictures of ancient modes of travel and will suggest, immediately, comparisons with modes of travel the children themselves have seen.

2. Unit suggestions in the course of study

In the course of study, the teacher will find a brief introduction to the unit; the objectives which it is hoped a study of the unit will develop; and important historical, geographical, and civic facts which it is reasonable to expect fourth grade children might acquire from a study of the unit

3. The unit work sheet

In the center, or Social Science, columns on the work sheets, the teacher finds the suggestions that Marco Polo be taken as the hero of early travel stories. The teacher will find general travel suggestions, many of which might apply today as much as they did in Marco Polo's time. These include knowledge of directions and distances, which have already been stressed in many units in the first three grades, and the use of maps and globes. The children can follow Marco Polo on his journey and see the interesting countries and people that Marco Polo saw.

In the art column, the teacher finds suggestions for study of pictures of Marco Polo and his journey. A mural might be developed of land travel in Polo's time showing camel and horse caravans. Early ships might be shown on another mural.

A border of designs depicting early travel could be made, showing ships, camels, Chinese people, palms, and pyramids; maps might be drawn showing Polo's route, or travel routes in the Mediterranean, in Southern Europe, or in Northern Africa. Under "Crafts," camels and ships are

suggested as carving subjects. An exhibit might be made of the things which early travelers found in the East: tea, silk, spices, jewelry.

Under "Language," it is suggested that interesting composition subjects might be found in the adventures of Marco Polo; that committees of the class might make special investigations and report back with stories of Marco Polo and other early explorers. Some poems are suggested for study, and other language activities; such as, letters, a class dictionary of new words from the unit, a pageant of travel, and written biographies of early explorers.

The "Arithmetic" column suggests problems growing out of present-day costs of silks and tea and also from a comparison of dates of early explorations

The Crusaders are an interesting period of study in this unit, and every column on the work sheet suggests study subjects and activities which contribute to a knowledge of the Crusades.

The most important part of the unit is the study of the exploration that resulted from the discoveries of Columbus. The several columns of the work sheet are rich in suggestions for study and activity covering this period. In "Art," we find pictures of the ships of Columbus, maps of his trips, compass designs, lettering copied from old maps. The Language column suggests compositions about Columbus and the merchant ships of his time, and a comparison of his journey with travel today; a study of Joaquin Miller's poem, "Columbus," and Walt Whitman's, "Prayer of Columbus;" dramatization of Columbus at the court of Ferdinand and Isabella, or explaining to other geographers that the earth is round.

In the bibliography, the teacher will discover a number of books which contain stories and factual reading material about this period

GRADE FIVE**I. Introduction**

In the fifth grade, the child follows the progressive expansion of the American nation from its humble beginning in the thirteen small communities scattered along the Atlantic coast. Canada and the Atlantic Ocean were effective barriers to any growth to the north and east, but the purchase of Louisiana and Florida and the annexation of Texas, tremendous areas, invited the pioneer and frontiersman.

An attempt is made at all times to consider the events and movements of the period in the light of their ultimate influence upon American life. The units which comprise the year's program are:

- A. A New Nation Takes Root Along the Atlantic Coast of North America
- B. The New Nation Reaches Across the Appalachians
- C. The Nation Grows Bigger and Stronger
- D. The Land of Contrasts, the Great West
- E. The Roof of the Nation, Montana
- F. How the Nation Acquired Far Possessions

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III. The Fifth Grade Units

A. Unit One: A New Nation Takes Root Along the Atlantic Coast of North America

1. Introductory statement

Following the gaining of its independence from the mother country, the new American nation found itself beset by the problems of setting up a form of government under which the people could live. The people desired a form of government which would guarantee freedom, and they wished to develop the new country by themselves, without foreign interference. Their first attempt under the Articles of Confederation, based upon the old European idea of independent states, resulted in an ineffectual and impractical union. In this unit, the children study the attempts to establish a stronger government, and the Federal Constitution which grew out of these attempts.

2. Objectives

- a. To appreciate the geographical conditions of the area in which the new nation was set up
- b. To acquire an understanding of the early beginnings of our government under the constitution
- c. To understand the nature of the new plan of government
- d. To understand how the people lived during the constitutional period

- e. To understand how manufacturing and commerce developed
 - f. To understand how resources and water power contributed to the development of the nation
 - g. To understand the development of transportation and communication
 - h. To understand how America became "The Land of Opportunity"
 - i. To understand the factors which contributed to the location of the important cities: New York, Philadelphia, Boston, Washington
3. Factual knowledge which is pertinent to the solution of the problems of the unit
- a. Facts of historical significance
The date of the establishment of the new government; the contributions of Washington, Jefferson, Hamilton, Madison; the development of iron and textile manufacturing; the growth of labor problems; the effect on transportation of the national highway, the Erie Canal, the steamboat and the early railroads; the contributions of DeWitt Clinton, James Watt, Robert Fulton; the coming of the immigrants; the selection of a site for the nation's capital
 - b. Facts of geographical significance
The nature of the Atlantic coastal plain area; the factors that led to the growth of the industries of farming, fishing, lumbering, mining, manufacturing, and commerce, in this region; interesting facts about New York, the nation's largest city; Boston and Philadelphia, famous Atlantic seaports, and Washington, the nation's capital
 - c. Facts of civic significance
The nature of the plan of government under the Constitution; the reason for failure of the Articles of Confederation, the financial plan of the new government, how America treated immigrants, the struggle of the new nation for recognition and commercial independence
- B. Unit Two: The New Nation Reaches Across the Appalachians
- 1. Introductory statement
The Atlantic coastal region was by no means crowded when hardy woodsmen and pioneers began pushing into the region beyond the Appalachians. Trails and roads soon led through gaps in the mountains and the Hudson-Mohawk water route was followed by thousands of settlers. The completion of the Erie Canal and the Cumberland Road made the trip west easier and the number of emigrants greatly increased. In the region of the upper Mississippi Valley and around the Great Lakes, the settlers found a

country of magnificent distances and resources. How these pioneers settled and developed this region; how they adapted their living to the needs of a new country; and how government was effective in regions remote from the centers of America's population, are the problems of this unit.

2. Objectives

- a. To understand the nature of the surface and climate of the northern part of the Mississippi Valley that made it the potential home of many millions of people
- b. To understand the difficulties which lay in the way of people who wished to migrate to northern part of the Mississippi Valley
- c. To understand how people adapted their lives to the conditions they found
- d. To understand how communities developed in the frontier region and how people learned to live together
- e. To understand how people capitalized on the resources they found
- f. To appreciate the value of the Great Lakes and the Mississippi River and its tributaries as aids to commerce and travel
- g. To understand why certain industries developed around certain centers which later became cities
- h. To understand how the people who settled this region developed trade with other parts of the country
- i. To understand how Chicago became a great railway center
- j. To understand how new ideas of democratic government developed in the West

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about George Rogers Clark, Lewis and Clark, Thomas Jefferson, Robert Fulton, Cyrus McCormick, Andrew Jackson, Sam Houston, the "forty-niners;" facts about early pioneers in the Ohio river valley, the purchase of Louisiana, the Lewis and Clark expedition, beginning of railroad building, early travel and transportation, the invention and improvement of farm machinery, frontier life, Indian wars, the purchase of Florida, the annexation of Texas, discovery of gold in California, the Mexican War

b. Facts of geographical significance

Facts about the Appalachian Mountains as a barrier to

migration; facts about early travel on foot, horseback, flat-boat, canoe, the region known as the Louisiana Purchase, the Erie Canal and the National Road, natural resources of the Upper Mississippi Valley, the size and location of Florida, Texas, California; the Mississippi River, the Rio Grande, the Ohio, the Columbia; travel routes to California; the Oregon Trail

c. Facts of civic significance

Facts showing the cooperation of pioneer people, early government in the Upper Mississippi Valley, new states come into the Union, lawlessness gives way to law and order in California

C. Unit Three: The Nation Grows Bigger and Stronger

1. Introductory statement

The Civil War is not studied in this unit as a series of military engagements, with names of generals, number killed and wounded, and the strategy of the campaigns; the whole question of slavery and the war is approached as an honest difference of opinion between two parts of the country which had to be settled before the nation could ever hope to become a great power. Slavery grew in the South as a result of a combination of climate, soil, and economic conditions. In recent years, the same climate, the same soil, and a better economy have contributed to development in the South of great agricultural and industrial regions, whose products are essential contributions to the bigger and stronger United States.

2. Objectives

- a. To understand the conditions in the South that made slavery profitable
- b. To understand the processes by which the American people solved the most serious problem of their history
- c. To understand what is meant by a federal government
- d. To appreciate the character of Abraham Lincoln
- e. To know something of the resources of the South today
- f. To understand the position of the Negro in American life

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts of the increasing area of the southern part of the country: Louisiana Purchase, Florida Purchase, Texas; facts about the growth of cotton farming: "King Cotton;" facts about the growth of slavery: the first slaves, spread of slavery in the South, abolition sentiment in the North;

plantation life; attempts to settle the slavery question, the Missouri Compromise; Abraham Lincoln; facts about cessation and the Civil War; facts about the construction and the building of a strong nation

b. Facts of geographical significance

The resources of the Southern States; differences in climate between North and South; facts about the Lower Mississippi and New Orleans; agriculture in the South; facts about stock raising and oil industries in Texas, Arkansas, and Oklahoma; facts about the New South

c. Facts of civic significance

Difference in beliefs of the North and South; the Doctrine of State's Rights; confederation and federation; emancipation of slaves; facts about rights of the Negro in the South today

D. Unit Four: The Land of Contrast—The Great West

1. Introductory statement

Montana children do not study the Great West as a rough frontier country filled with excitement and danger, but as a magnificent and beautiful region where boundless areas and great resources challenge people to live vigorous, productive, happy lives. The West assumes new importance during our war with Japan, and children should realize that its resources will be developed during the war period as they have never been developed before.

2. Objectives

- a. To know the location and the topography of that part of the United States which is known as "the Great West"
- b. To know the history of the discovery, exploration, and development of this region
- c. To appreciate how people worked together to make possible the settlement and development of the West
- d. To understand how the United States government is attempting to conserve the resources of this region
- e. To realize the contribution which the West has made to the greatness of our country
- f. To understand how people living in the West have adapted themselves to their environment

3. Facts pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about early explorations in the West: Lewis and Clark, John Jacob Astor; the missionaries; facts about Brigham Young and the Mormons; facts about gold discoveries and the "forty-niners;" the overland stage, pony

express; the homesteaders; improvements in transportation and communication bind East and West together; facts about new farming in the West, Luther Burbank

b. Facts of geographical significance

Location facts; the Oregon Trail; the Santa Fe Trail; the three routes to California, the Great Salt Lake, Portland, Seattle, San Francisco, Los Angeles; facts about the surface of the West; new mountains, plateaus, the Great Basin; the great contrast of the West; the great rivers of the West

c. Facts of civic significance

Facts about people working together to conserve the national resources of the West: timber, minerals, water, soil, animals, scenic beauty; facts about National parks and forests; facts about Indian reservations; facts about government reclamation of arid land

E. Unit Five: The Roof of the Nation—Montana

1. Introductory statement

Through the first four school years the child's community has been broadening, and in this grade he studies a community of state-wide proportions. He already knows many facts about his physical and social environment. In the unit which he is now to study all of these facts are associated to give him a picture of his own state. It is hoped that no teacher will overlook the opportunity to utilize home and community resources in order to develop the story and the picture of Montana.

2. Objectives

- a. To know and appreciate Montana's natural resources
- b. To know the history of Montana's pioneers: traders and trappers, miners, stockmen, lumbermen, and farmers; of Montana's Indians
- c. To acquire an accurate picture of Montana's size, shape, location, and topography
- d. To acquire an understanding of how people in Montana cooperate in the interest of government: local, community, county, municipal and State; and how Montana contributes to the greatness of the nation
- e. To know and appreciate the traditions, mores, literature, music, and art of Montana

3. Facts pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about early explorers: Verendyre and Lewis and Clark; facts about early traders and trappers: John

Colter, Jim Bridger, David Thompson; facts about the missionaries; facts about Indians, prospectors, road agents, claim jumpers, Vigilantes, the first livestock in Montana, early farming, the homesteaders, the coming of the railroads; facts about Montana's contributions to the World Wars

b. Facts of geographical significance

The location of Montana: the Rocky Mountains, the east slope, the west slope, Canada, neighboring states; facts about Montana's resources: gold and silver, other metals, coal, oil, and gas, building materials; facts about climate: temperature, winds, and rainfall; location facts: Missouri, Yellowstone, and Columbia Rivers, Flat-head Lake, the Fort Peck dam, Yellowstone and Glacier National Parks; production facts: grain, hay, sugar, beef, wool, and lamb; facts about timber and lumbering

c. Facts of civic significance

Facts about school districts, counties, towns, and cities; facts about Montana laws; facts about public officials; how people in Montana cooperate for education, production, religion, and happy living; facts about the government's care of Indian tribes in Montana

F. Unit Six: How the Nation Acquired Far Possessions

1. Introductory statement

After the purchase of Alaska in 1867, many years elapsed before the United States acquired other territory outside of its continental borders. The period during which the United States acquired former Spanish islands and annexed Hawaii has been called "the period of territorial expansion." It has been customary to think that the most important cause of the study of the territories and possessions of the United States is the part they played in raising the United States to the status of a world power. In this unit the territories and possessions are studied not only in this light, but in their own status as interesting geographic regions where people are improving their way of life and, in many cases, preparing themselves for self-government.

2. Objectives

- a. To acquire a knowledge of the location of the far-flung territories and possessions of the United States
- b. To acquire a knowledge of how the people in these territories and possessions live
- c. To understand the relationship between the United States and its territorial possessions
- d. To understand how these territories and possessions are governed

- e. To understand how the possession of these territories and possessions has caused the United States to take greater interest in world affairs
- f. To understand the position of these territories and possessions in the second World War
- 3. Facts pertinent to the solution of the problems of the unit
 - a. Facts of historical significance

Facts about Secretary Seward, William McKinley, George Dewey, Colonel Goethals, Theodore Roosevelt, General MacArthur, General Wainwright; facts about our entry into World War II
 - b. Facts of geographical significance

Location facts: Alaska, Dutch Harbor, Hawaii, Pearl Harbor, Cuba, Havana, the Philippines, Manila, Corregidor, Puerto Rico, the Virgin Islands, the Panama Canal Zone; facts about trade routes between the United States and its possessions; facts about imports and exports; facts about how people make a living in our territories and possessions
 - c. Facts of civic significance

Facts about the Monroe Doctrine, the "Open Door in China;" facts about the government of Alaska and our island possessions; how our possessions have affected our relationship with Spain, Mexico, Japan

IV. Development of a Sample Fifth Grade Unit

Unit One: A New Nation Takes Root Along the Atlantic Coast of North America

A. The approach (See General Suggestions on "Approach to a Unit," page 476)

As this is the first unit to be studied during the fifth year, there is no immediate approach from a preceding unit. The subject matter of the unit, however, definitely follows the last unit of the fourth grade. The fifth grade children have a new history text; and pictures in the first pages of the text, as well as other pictures which the teacher may have found, should assist in the approach to the unit.

B. Unit suggestions in the course of study

In this course of study, the teacher will find a brief introduction to the unit; the objectives which it is hoped a study of the unit will develop; and important historical, geographical, and civic facts which it is reasonable to expect fifth grade children might acquire from a study of the unit

C. The unit work sheet

In the center, or Social Science columns, the teacher finds that the problems of the unit are to be those of making the

constitution, establishing the new government, establishing commercial independence, and getting down to work as a new nation. The teacher will find in these columns the suggestion that a study of the geographical conditions of the area in which the new nation began will throw much light on the history of the period. In the column, "Art and Hand-work," the teacher will find suggestions for many creative activities growing out of the social science outlines; for example, the colonial and the constitutional periods might be made clear to the children by drawing pictures of early American homes—exteriors and interiors, or by drawing pictures of scenes in New York in Peter Stuyvesant's time. A mural could show colonial scenes as, Independence Hall in Philadelphia, or Washington riding to his inauguration. Designs for quilt blocks and samplers might be made. Maps might be drawn showing the country at the time the constitution was adopted. Lettering might be copied from facsimilies of the Declaration of Independence or the constitution; colonial furniture, stage coaches, and tavern signs might be carved and built; exhibits of colonial articles might be shown, and pictures of colonial life might be studied. In the "Science (Health)" column, the teacher will find the suggestion that people in colonial times had health problems: diet, proper clothing, protection, ventilation, just as we have today, and a study of their life might furnish interesting contrasts to the way we live now. In the "Language" column, the teacher will find suggestions of interesting conversation subjects; such as, colonial schools, colonial homes, and colonial courtesy. Subjects for stories might be found in the activities of colonial children in Indian legends and the lives of famous people of colonial times. A class report might be made on the punishments of colonial times. The making of the federal constitution might be dramatized, and imitated in the making of the constitution for the school club. Biographies of famous people of the constitutional period could be included in the notebook.

The "Arithmetic" column suggests types of problem material going out of the unit; and in the "Music" column, the teacher will find songs of the period and suggestions for musical dramatization. These suggestions have covered only the first problem of the unit. Problems II, III, and IV, may also be developed through following the suggestions made in the several columns of the unit work sheet. The teacher should see that some reading material is available either from the bibliography or from other books which may be on hand.

GRADE SIX

I. Introduction

In the sixth grade, the child goes back to earliest times and traces the development of man through the primitive and early stages of civilization. The purpose of studying the spread of civilization in Europe is to give the child a clear picture of the Old World background of American life.

To give a better understanding of some of the causes of the second World War and of some of the realignments which are taking place among nations as a result of the war, special emphasis in this grade is given to the British and French Empires, to Russia and her Scandinavian neighbors, to Germany and her neighbors in Central Europe, and to the Republics of Latin America. The units which comprise the year's program are:

- A. The World and the Early Civilizations That Developed Upon It
- B. Civilization Comes to the Peninsulas of Southern Europe
- C. The Middle Ages
- D. The British and French Empires
- E. Russia and Her Neighbors
- F. Germany and the Countries of Central Europe
- G. Twenty Good Neighbors, Latin America

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III. The Sixth Grade Units

A. Unit One: The World and the Early Civilizations That Developed Upon It

1. Introductory statement

In this unit, boys and girls learn about the earth, through the sciences of astronomy, meteorology, and geography. They see primitive man and the beginnings of history and civilization. They study the regions in which the early civilizations developed, as they were in the time of early man and as they are now. The events of the war have brought these regions forcibly to the attention of the American people.

2. Objectives

- a. To understand that civilization has been a cumulative process in which each age has inherited the progress of the ages that went before
- b. To understand how primitive man domesticated animals, used fire, found shelter, fought his enemies, found food, began to use clothing for protection, and learned the need of cooperation with his fellowmen

- c. To understand the contributions of early peoples to civilization
 - d. To know something of world geography
 - e. To understand how government developed among the early civilizations
 - f. To know about the people who live today in northern Africa, in the Near East, and in the Far East
3. Factual knowledge pertinent to the solution of the problems of the unit
- a. Facts of historical significance
How the earth was prepared for man; facts that show what early man was like, how he tamed wild animals, made use of fire, and made tools and implements; how early man progressed in his use of implements; facts about ancient civilizations in: Egypt, Babylonia, Phoenicia, and in the Orient; facts about the early Hebrews; facts about the modern civilizations that developed in the regions where the first peoples lived
 - b. Facts of geographical significance
The size and shape of the earth and its relation to other heavenly bodies, its movements and position; facts about the day, the year, and the seasons; facts about land and water areas, zones, climate, latitude, and longitude; facts about northern Africa: the desert and the Nile; facts about the Near East, the Holy Land, the Far East; how ancient peoples in these regions made a living and how people make a living there today; facts about the Suez Canal; the "British life-line"
 - c. Facts of civic significance
The way government probably developed among primitive men; how primitive men banded together for protection; types of government that developed among the early civilized peoples; government today in Egypt, in India, in China, in Japan
- B. Unit Two: Civilization Comes to the Peninsulas of Southern Europe
- 1. Introductory statement
This unit immediately succeeds and grows out of Unit One. The Greeks took up the torch of civilization from the people studied in the earlier unit, and the Romans, in turn, inherited the ideals of the Greeks. The Democracy of the Greeks was the prototype of democratic governments the world over, and as such deserves careful study. The present war has made it necessary that boys and girls in America understand the historical development of the people who occupy the Greek and Latin peninsulas.

2. Objectives

- a. To learn about the greatness of early Greece and Rome, and the contributions which these people made to civilization
- b. To know about the Mediterranean climate: how people lived in the peninsulas of southern Europe in ancient times, and how the people there today live
- c. To trace the development of the ideal of democracy among the Greeks
- d. To understand the parts being played in the World War by the people who live in Greece and Italy

3. Facts which are pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the life of the Athenians and Spartans; how the Greeks came to be seafaring people; facts about education in Greece; facts about Greek civilization: art, science, agriculture, literature; facts about the Greek wars and conquests; facts about the early Roman Empire; facts about the Roman wars and conquests; facts about the fall of Rome

b. Facts of geographical significance

How fine harbors, unproductive homeland, and ideal location made of the Greeks a seafaring people; the Mediterranean climate; extent of the Greek Empire; the extent of the Roman Empire; facts about the countries from which the barbarians came; facts about Italy today; facts about the Balkan countries today; location facts: Athens, Rome, Florence, Sicily

c. Facts of civic significance

Facts about the Greek ideal of democracy; city-states; Greek love of freedom; facts about the Roman Empire; how Rome treated conquered countries; how the Roman Empire decayed; facts about modern Greek struggles for freedom; facts about Italy under the Facists

C. Unit Three: The Middle Ages

1. Introductory statement

This unit differs from many of the units in the intermediate grades in that the pupils are not intent on the study of rapidly changing events and great historic and social progress. The study of this unit presents, instead, an historical pause where the pupils observe the life of the people who lived in a very interesting but comparatively static period. The study of this unit presents excellent opportunities for the introduction of health facts in com-

parisons of living in the Middle Ages with living today. The unit presents excellent opportunities, likewise, for the study of civic facts and an evaluation on the pupils' part of the progress we have made today beyond feudalism.

2. Objectives

- a. To discover how people lived in the Middle Ages, in contrast with our living today
- b. To know the important routes over which the people of the Middle Ages carried on their trade
- c. To recognize the importance of the Crusades, and to recognize that the Crusades contributed to the discovery of America
- d. To understand the growth of social classes during the feudal period

3. Facts pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about lack of culture and spirit in the Middle Ages; facts about buildings, churches, castles, houses of serfs; about how houses were heated and lighted; facts about food and clothing; what the people did for a living, the place of the Church in their lives; facts about the Crusades and the direct relationship between the Crusades and the subsequent desire for trade that led to attempts to find a western route to India

b. Facts of geographical significance

Facts about the trade routes of the Middle Ages and the produce carried; comparisons of sea and land travel; the routes of the Crusaders; facts about the use of medieval routes in modern trade, in the present war; facts about the beliefs regarding the shape and size of the earth, and about the part of the world that was known during the Middle Ages

c. Facts of civic significance

Facts about the feudal system: homage, vassals, social classes, tolls and taxes; the part of the Church in government; the part of the Church in education; chivalry; facts about laws and punishment; the rise of the nobility

C. Unit Four: The British and French Empires

1. Introductory Statement

The importance of the English and the French Empires in the present war dwarfs all other interest Montana boys and girls might have in the people of these countries. However, a study of the history of these people, and of the geography of the regions they have occupied is neces-

sary if a complete understanding of their present status is to be understood. The teacher should attempt to help children trace the present English and the French Empires, as they know them, back to influences and national ideals which were instrumental in building up these two great Empires.

2. Objectives

- a. To understand how France developed as a nation, and how the French acquired vast territorial areas in Africa and in the East
- b. To understand how England's geographic location encouraged its people in exploration and colonization
- c. To understand that the development of the ideals of liberty among the English people continued on American soil, and surpassed the progress of democracy in the mother country
- d. To understand the part the British and French Empires are playing in the present war

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the Franks, Charlemagne, Joan of Arc, Napoleon; facts about the French Revolution; the conquests of Napoleon; the retreat from Moscow, Waterloo; facts about France and the World War; facts about early England, Poland, the Romans, Angles, Saxons, Normans; facts about England's sea strength and the defeat of the Spanish Armada; facts about the development of England's Empire; facts about England in the first World War, in the present war

b. Facts of geographical significance

Facts about the climate and topography of France and of her colonial possessions; how the present war has affected the French Empire; facts about the climate and topography of England and about her colonies and dominions; the location of British outposts in the present war: Egypt, Australia, New Zealand, South Africa, India, Gibraltar, Malta, Singapore

c. Facts of civic significance

The causes of the French Revolution; founding of the French Republic; ideals of freedom of the early English; growth in England of liberties of the common people; the British government today; influence of English ideals in the United States, Canada, Australia, New Zealand; the problem of India

E. Unit Five: Russia and Her Neighbors

1. Introductory statement

The war has greatly increased the importance of Russia and its neighbors in the international picture, and has made it imperative that Montana boys and girls learn about this great country. The association of Russia and the Scandinavian countries in this unit is largely geographical since, historically, these people have little in common, and the forms of government they have built up are dissimilar.

Children in Montana have only to ask the names and hear the stories of their neighbors to realize the impact of the Scandinavian people upon Montana life, and the influence immigrants from these countries have had upon the history of the State

2. Objectives

- a. To understand how the natural and the human resources of Russia have made possible her defense against the German invaders
- b. To understand the climate and the topography of the Scandinavian peninsula
- c. To understand the characteristics of the Scandinavian people
- d. To understand the positions of Russia, Finland, Sweden, Norway, Denmark, and the Baltic Countries in the World War
- e. To understand how the people in these countries are governed

3. Factual knowledge pertinent to the solution of the problem of the unit

a. Facts of historical significance

Facts about the early history of Russia: Kiev, Moscow, Petrograd; facts about the czars; Peter the Great, Catherine; facts about Russia at war; the Crimean War; Japan; the first World War; the second World War; facts about the Russian Revolution, Lenin, Stalin, Kulaks; the creation of the Baltic countries; facts about the early Norsemen, about Scandinavian emigration; Norway, Denmark, and Sweden in the present war; the story of Poland

b. Facts of geographical significance

Physical features of Russia, the Baltic countries, Finland, Norway, and Sweden; facts about the rivers and mountains; facts about the climate: Black Sea region, the Great Plain, Asiatic Russia; facts about the resources of Russia, of the Scandinavian countries; facts about

lumbering, mining, fishing, commerce, farming; facts about Russia's lines of defense in the West and the East

c. Facts of civic significance

How Russia was governed under the czars; the Russian Revolution; education under the Communists; the Soviet Union; early harshness of the government; relations with Finland and the Baltic countries; republics established in northern Europe; the Scandinavian monarchies

F. Unit Six: Germany and the Countries of Central Europe

1. Introductory statement

Many military commentators believe that Germany, and not Japan, is the number one enemy of the United States in the second World War. It may not be the problem of the sixth grade in a Montana school to determine whether this statement is correct or not, but it will definitely be their problem to understand the conflicting ideologies of the German and the American peoples that have brought these nations into two wars within a generation. A thorough understanding of the history and the geography of Germany may help Montana boys and girls participate intelligently in the formulation of a national thought and opinion which will prevent America from repeating the mistakes she made at the close of the first World War.

2. Objectives

- a. To understand how Germany developed as a nation
- b. To understand the contributions of the German people to civilization
- c. To understand the ambitions and aspirations of the German people
- d. To understand the nature of the German government under the Nazis
- e. To understand how Germany's location and resources affect her ability to make war on other nations

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the German states and the formation of the Empire; facts about Bismarck, the Franco-Prussian War, Wilhelm I, the Kaiser; facts about Germany in art, music, and literature; Martin Luther; facts about Germany in the first World War, the German Republic (Reich); the

treaty of Versailles; facts about Hitler, German expansion, the second World War; facts about Austria, Hungary, Czechoslovakia, and minor countries invaded by Germany, the slaughter of the Poles and Jews, the independence of Switzerland

b. Facts of geographical significance

Facts of Germany's surface, climate, resources, location in respect to other countries; how the people make a living; advantages for war of Germany's position; disadvantages; the part of the Danube in the war; of the Baltic; of the North Sea; of the Kiel Canal; facts about air bases, submarine bases; the "Drang Nach Osten"

c. Facts of civic significance

Government of the early German states; the imperial ideal; German militarism; facts about the Nazis; government by force, the Gestapo; the ideal of racial supremacy; government in the subjugated states; "Protection;" Germany's declaration of war on the United States

G. Unit Seven: Twenty Good Neighbors; Latin America

1. Introductory statement

Montana boys and girls would doubtless think it very strange if children in other countries of the American continent did not know about Washington and about what we choose to call "The American Revolution." It so happens that most school children in the Latin American republics do know about Washington, but how many children in Montana schools know about Simon Bolivar and other South American liberators; or about the many "American Revolutions," beginning at about the same time as ours, which resulted, after many years, in the liberation of the people of South America?

National leaders in the United States today are working ceaselessly for a common understanding and a solidarity among the American republics. As a contribution to that solidarity this unit plans that the children of Montana learn a great deal about our twenty good neighbors.

2. Objectives

- a. To know about the topography, the climate, and the resources of the Latin American republics
- b. To know how the people of the Latin American republics live
- c. To know about their struggles for independence, and the governments they have set up

- d. To realize the interdependence of all the people of the Western Hemisphere
- 3. Factual knowledge which is pertinent to the solution of the problems of the unit

- a. Facts of historical significance

Why the Spanish and Portuguese became great explorers; facts about their colonies in South America; early people in Latin America; Toltecs, Aztecs, Incas, Indians; facts of struggle for independence of Latin America; Simon Bolivar, San Martin, Miranda

- b. Facts of geographical significance

Facts about climate and resources of Spain and Portugal; geographical facts which led Spaniards and Portuguese to settle in Mexico and South America; facts about climate and topography of Mexico; facts about climate and topography of the South American republics; how the people make a living; crops raised; the river valleys, Amazon, Orinoco, Plata; commerce with the United States; facts about cities of Latin America; facts about the people: Indians, whites, Negroes

- c. Facts of civic significance

South America, a continent of republics; facts about revolutions; relations between the countries; relations with the United States; the Monroe Doctrine; the Pan-American Union; the "Good Neighbor Policy;" attitude of Latin American countries toward Germany; United States protectorate over Cuba; government of the Canal Zone

IV. Development of a Sample Sixth Grade Unit

Unit One: The World and the Early Civilizations that Developed Upon it

- A. The approach (See General Suggestions on "Approach to a Unit," page 476)

As this is the first unit to be studied during the sixth year, there is no immediate approach from the preceding unit. Throughout the fifth year the pupils were acquiring an understanding of their own nation. They learned many of the facts of its history and through geography acquired a picture of the physical environment in which the nation grew. They studied the type of living which developed in the United States and from these types of living acquired some understanding of the functioning of democracy. But a complete

understanding of the story of American life depends upon events which happened in Europe before the founding of our own nation. Accordingly, the sixth grade undertakes a study of the European backgrounds of American history. In the first unit of this grade the children go back to the earliest civilizations which can be traced. They have made considerable study, however, of early and primitive people, so this subject is not entirely new to them.

B. Unit suggestions in the course of study

In this course of study, the teacher will find a brief introduction to the unit; the objectives which it is hoped a study of the unit will develop; and important historical, geographical, and civic facts which it is reasonable to expect sixth-grade children might acquire from a study of the unit

C. The unit work sheet

In the center, or Social Science columns, the teacher will find listed six historical ages. These deal with prehistoric man, the Egyptians, Babylonians, Hebrews, Phoenicians, and the Orientals. In the Social Science outlines will be found suggestions for studying the ways these people lived: what their homes were like; what they used for food and clothing; how they used fire; how they traded, travelled, and communicated with other people; in this unit there will also be found outlines for study of the earth and of the regions of the earth in which early man lived.

In the column devoted to "Applications of Art and Hand-work," the teacher will discover many suggestions for developing a knowledge of these early peoples; for example, when the children, when they are studying the Egyptians, might wish to make drawings of Egyptian life, the Nile river, the pyramids and the sphinx, and of the art which the Egyptians had. A mural might be made showing an Egyptian scene in the times of the Pharaohs, and superimposed upon this might be a picture of a modern desert battle. Other mural subjects might include early ships on the Mediterranean, street scenes in Egyptian cities, and the pleasure boats of the Pharaohs on the Nile. Wall hangings might be designed using Egyptian figures; and physical, political, and war maps of Egypt might be drawn. Egyptian art might be studied and a scrapbook made of Egyptian pictures.

In the column, "Applications of Science (Health)" the teacher will find suggestions for studying the food and clothing of people who lived in hot, dry countries; the sources and kinds of food the Egyptians used in primitive times compared with the food used today. In the "Language" column, conver-

sation subjects are suggested, such as primitive Egyptian farming compared with farming today; children might tell stories of an imaginary journey up the Nile river or of a visit to the pyramids. Special study of the pyramids and Egyptian architecture could be made for class reports. The school club could have an Egyptian program built around visits to the ancient tombs and the modern Suez Canal. Under "Applications of Arithmetic," type problems are suggested which the teacher may develop from the subjects in the unit. In the "Music" column, the teacher finds a suggestion for the study of primitive Egyptian instruments. Similar developments are made within the several columns of the unit work sheet for prehistoric man, the Egyptians, Hebrews, Phoenicians, and Orientals. The World War has given the regions in which these people lived great importance. In the bibliography for this grade, the teacher will find many books which contain stories and factual information about this region. Current literature is also full of stories about happenings in modern Egypt, and the Mediterranean countries.

GRADE SEVEN AND EIGHT

or

JUNIOR HIGH SCHOOL

I. Introduction

"What is news today is history tomorrow. The events (of today) which vitally affect the lives of pupils and their parents gain new meaning and are less alarming when seen in their proper perspective against the background of the past "

"The main theme (of the social studies) is the life of the people of America—their ways of living and working, their struggles to overcome hardships, their ideas and ideals, their efforts to work out the best means of realizing (justice for all) and of making democracy work. Occasionally heroic leaders stand out from the crowd, but for the most part America's story is the story of her people."*

In Grades Seven and Eight, the story of the growth of the American people and nation naturally divides itself into ten great chapters or problem areas. Each of these is covered in a unit of work. It is planned that five units be covered in Grade Seven and five in Grade Eight.

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III. GUIDE TO THE USE OF SOCIAL TEXTS IN USE IN MONTANA IN 1941*

GRADE SEVEN

GRADE SEVEN UNIT ONE	The New World That Europe Found	Roman Numerals Refer to Units in "The Story of Our Country"	Roman Numerals Refer to Units in "Our American Citizenship"
GRADE SEVEN UNIT TWO	<p>I. Europe Finds a New World The Red Man's America The White Man in the Old World The White Man Finds America</p> <p>II. Europeans Find New Homes in America Immigration to the U. S. Began How England's Settlements Grew How English Colonists Lived The French Gain and Lose an Empire in America</p> <p>III. A New American Nation is Born England and the Colonies Disagree How the Colonies Won Independence How the New Nation Formed a Government</p>	<p>I. Europe Finds a New World The Red Man's America The White Man in the Old World The White Man Finds America</p> <p>II. Europeans Find New Homes in America Immigration to the U. S. Began How England's Settlements Grew How English Colonists Lived The French Gain and Lose an Empire in America</p> <p>III. A New American Nation is Born England and the Colonies Disagree How the Colonies Won Independence How the New Nation Formed a Government</p>	<p>From other texts and sources: Picture the Redman's free life, vast spaces, and room to breathe. Picture the crowding of Europe, the lack of resources, poverty, class slavery</p>
GRADE SEVEN UNIT THREE	<p>How a Nation Was Formed</p>	<p>From other sources show how the ruggedness of the new country built independence of spirit in the colonists. Show how distance eliminated the shadow of the Old World. See Grade Five, Unit 1.</p>	<p>From other texts and sources: Find the reasons that brought the colonists to America. What human desires were cramped in the Old World? Why did they "Fly to realms they knew not of,"</p>
GRADE SEVEN UNIT FOUR	<p>How People Lived in the Early Days of the Nation</p>	<p>V. How the People Used Their Farm Lands VI. How They Used Grazing Lands VII. How They Used the Forest Resources VIII. How They Used Their Fisheries</p>	<p>From other sources and discussion anticipate the kind of government these people would set up. Analyze what they did (Our American Citizenship, pages 467 to 487) to see if it meets your expectations. Get the picture of a government of laws</p>
GRADE SEVEN UNIT FIVE	<p>Americans Learn New Ways of Living</p>	<p>IX. Resources Below the Soil: Water, Fuels, Metals, Minerals X. Our Wealth of Water Power XI. The Growth of Manufacturing Industries Manufacturing Centers Begin to Develop</p>	<p>I. Associated Living Where and How We Live We Live, Work, and Play Together Our Needs and Our Wants</p>
GRADE SEVEN UNIT SIX	<p>Americans Learn New Ways of Living</p>	<p>IX. Resources Below the Soil: Water, Fuels, Metals, Minerals X. Our Wealth of Water Power XI. The Growth of Manufacturing Industries Manufacturing Centers Begin to Develop</p>	<p>II. America's Wealth Natural Resources Plus Labor Sunshine for a Rainy Day: Thrift Our Bank Accounts and Our Schools Progress Through Communication Transportation, and Industry</p>

GRADE EIGHT

GRADE EIGHT UNIT ONE	Roman Numerals Refer to Units in "The Story of Our Country"	Roman Numerals Refer to Units in "The United States Among the Nations"	Roman Numerals Refer to Units in "Our American Citizenship"
How the People's Government Met New Problems	VI. The Strength of the Union Tested How the People's Government Met New Problems How the Nation Reached the Pacific How North and South Became Rivals—A Nation at War	(See Grade Five, Unit Three) From other sources show that the misunderstandings and dif- ference between the North and the South were fundamentally geographic	From other sources show how slav- ery was incompatible with the Amer- ican ideal of human equality and individual opportunity
GRADE EIGHT UNIT TWO How Science and In- vention Helped Industry Expand	VII. United Nation Expands How We Filled Our Free Lands Our Industries Grow How Our Population Grew and Concentrated in Cities How Our Expanding Nation Gave the Government New Prob- lems	XII. Travel, Transportation, and Communication The Railroad Period The Automobile Period XIII. The Development of Commerce Foreign and Domestic	III. Capital and Labor Community Action and Individual Responsibility Life and Work in Country, Vil- lage, Industrial Center, City Choosing a Vocation Being a Good Consumer
GRADE EIGHT UNIT THREE New Problems of a World Power	VIII. The United States and Its Neighbors How the United States Ex- panded Overseas New Problems as a World Power How the World Went to War Planning a Peaceful World	From other texts and sources assemble a view of the geog- raphy of World War I. Com- pare the colonial areas of the warring nations. Compare the resources in men and in ma- terials	From other sources show how Ger- many was unable to understand America's willingness to make sacri- fices to maintain her way of life
GRADE EIGHT UNIT FOUR America Faces Immense Tasks	IX. America Faces New Tasks Twentieth Century Science— Our Master or Our Servant How We Fit Ourselves to Live Together in the Modern Age How Have We Solved the Problems Left by the War?	From other texts and current sources assemble a view of the Pacific and the areas of World War II. Compare the "Have" and "Have Not" nations	IV. What Do I Do With My Citizen- ship? The Pattern of Our Government Government in Action: Local, County, State, and Nation (See Montana Government, Ab- bott) Our Political Parties One in 130,000,000 V. Government in Action: Local, County, State, and Nation (See Montana Government, Ab- bott) Our Political Parties One in 130,000,000
GRADE EIGHT UNIT FIVE How we Live and Govern Ourselves In a War World	From "Montana Production"*** and from current sources build up the picture of the life of the American, and more par- ticularly the life of the Mon- tanan. Discover from the ra- dio and from daily reading what war does to that life	From the Montana supplement to "The United States Among the Nations" and from "Mon- tana Production"*** understand Montana's contribution to the war, showing it as a part of the national war effort. From war maps and newspapers follow events closely.	VI. Our National Budget The Taxpayer's Dollar How Our Government Raises Money (See Montana Govern- ment, War Stamps and Bonds Bulletins, ** and other sources for view of public finance) Financing the War Effort

*This chart must not be interpreted by the teacher as suggesting that only the books listed are necessary. The bibliography should be consulted for additional sources (see page 555)

**Not state adopted texts

IV. The Seventh Grade Units

A. Unit One: The New World that Europe Found

1. Introductory statement

In the seven units which comprise the social science studies program for Grade Six, the European background of American history was studied. In this unit the scene shifts to the American continent, and the children study the beginnings of a century of nation-building

2. Objectives

- a. To understand how Europeans explored the American continent
- b. To know what the North American continent was like when the early explorers and settlers first saw it
- c. To understand the causes which led European peoples to settle in America

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about conditions in Europe during the Renaissance: modes of travel, how the people lived; the manorial system; Mediterranean trade; facts about the early Portuguese explorers; facts about the life and explorations of Columbus; facts about Leif Ericson, Balboa, Magellan, Cortez, Pizarro, DeSoto, Coronado, the Cabots, Raleigh, Drake, Cartier, and LaSalle; facts about transatlantic travel today; facts about the difficulties of the earliest colonists; date facts: 1492, 1607

b. Facts of geographical significance

Facts about the trade routes of the Middle Ages; the world as Columbus knew it: the Mediterranean countries, Africa, the Near East, the Far East; the routes of the early Atlantic explorers; facts about which the explorers needed to know: the compass, winds, currents, temperatures; facts about the regions of the American continent

c. Facts of civic significance

Facts about governments in Europe during the Renaissance: kings, courts, knights, social classes, serfs, free men, slaves; facts about government on shipboard: the captain, mutiny; facts about government in the earliest colonies; facts about the freedom of Indian life

B. Unit Two: How Europeans Found New Homes in America

1. Introductory statement

The approach to this unit from the one preceding it is so direct that the children may not realize a new problem is

involved. It is impossible, of course, to draw a hard and fast line between exploration and colonization in any new country, but the problem of this unit is the problem of the colonization efforts of the English, French, Swedes, and Dutch, and the struggles among these nationalities which left the English in almost undisputed possession of the northern part of North America.

2. Objectives

- a. To understand how the early colonists lived
- b. To understand how the English came into possession of most of North America
- c. To acquire an overview of the geography and the climate of the United States
- d. To appreciate the reasons that brought the colonists to America
- e. To understand why the English succeeded and others failed

3. Factual knowledge which is pertinent to the solution of the problems of the unit

a. Facts of historical significance

Important events that occurred in the colonies: starving time, Indian troubles, Bacon's Rebellion in Virginia; founding of new colonies, religious differences, development of government, relations with Indians in New England; religious toleration; growth of government in the Middle Colonies; how the French gained and lost an empire; facts about how people lived in the colonial era

b. Facts of geographical significance

Facts about the physical features, climate, and soil in the Virginia colony; facts about the physical features, climate, and soil of the North Atlantic coastal region; facts about the physical features, climate, and soil of the Middle Colonies; facts about the natural resources of the regions colonized; facts about the regions explored and settled by the French; general facts about the whole area which later became the United States

c. Facts of civic significance

Facts about church and state relationship in the colonies; facts about early attempts to establish governments: the House of Burgesses, Mayflower Compact, The General Assembly (Pennsylvania), the town meeting; facts about liberal tendencies in the Middle Colonies; facts about early education; facts about the different ideas of government of the Spaniards, Dutch, French, Swedes, and English

C. Unit Three: How a New Nation Was Formed (See Grade Five, Unit One)

1. Introductory statement

The approach to this unit is very direct and natural from the units which precede it. In this unit the boys and girls watch the creation of the constitution and the beginnings of the new government established under the constitution. No teacher should permit a seventh grade group to develop an understanding of the constitution which makes it a remote, forgotten instrument of government about which men quarreled and compromised a hundred and sixty years ago. The study of this unit should give each child the concept of the constitution of the United States as a living, growing, foundation of law, upon which American democracy continues to develop as a government "of the people, by the people, and for the people."

2. Objectives

- a. To understand the underlying causes of the differences between the colonists and the mother country
 - b. To appreciate the characters of the men who led the colonists in their struggle for independence and to know about the stirring events which led up to final victory of the colonists
 - c. To picture the surface characteristics and the resources of the North Atlantic states which contributed to the success of the new country
 - d. To understand clearly the nature of the government which was set up under the Constitution
3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the early dispute with England: character of George III, Stamp Act, Townshend Acts, Boston Massacre, tea tax, and the Boston Tea Party, First Continental Congress; facts about the Revolutionary War: Lexington and Concord, Burgoyne's surrender, Arnold's treason, Valley Forge, the American Navy, conquest of the Northwest; Yorktown; facts about great leaders: Washington, Samuel Adams, Franklin, Patrick Henry, Thomas Jefferson, George Rogers Clark, Lafayette; date facts: 1776, 1789

b. Facts of geographical significance

Facts about the Atlantic coastline: harbors; facts about rivers: Hudson, Delaware, Potomac; facts about the resources of the North Atlantic region; occupational facts: farming, fishing, lumbering, manufacturing, commerce

c. Facts of civic significance

Facts about colonial legislatures; facts about the attempts at union; facts about the Continental Congresses, the Declaration of Independence and the Articles of Confederation; facts about the making of the Constitution: the men, the compromises, and the nature of the plan of government which was finally worked out

D. Unit Four: How People Lived in the Early Days of the New Nation

1. Introductory statement

One task which the Social Science teacher always faces is that of helping children to discover that great progress in a nation comes in time of peace. Wars, revolutions, rebellions, and strikes are showy episodes in history, but it is only from a close study of the peaceful interludes that real progress can be measured. This unit covers a comparatively peaceful interlude when a new government is struggling to overcome its weaknesses and is finding its strength.

2. Objectives

- a. To discover how people lived in the early days of the new nation
- b. To appreciate the problems of the new government and to discover how the people met them
- c. To discover how the people used the natural resources of the country to make the new nation stronger
- d. To discover how the people of the new country learned to live together and build an effective union
- e. To observe how the new nation began to take its place among the nations of the world

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the daily living of the people: their food, clothing, homes, implements, travel, and education; facts about the great men of the period: Washington, Jefferson, Hamilton, John Jay, John Adams, John Marshall, James Madison, James Monroe; facts about the War of 1812; date facts: 1803, 1805-6, 1812, 1823

b. Facts of geographical significance

Facts about the new territory added to the original thirteen states: Louisiana, Florida; facts about the Lewis and Clark expedition and the country they explored; facts about how the people used their resources: farm lands, grazing lands, forests, fisheries

c. Facts of civic significance

Facts about the beliefs of the political parties; facts about the early problems of the new government: finance, power of the courts, tariff, taxes, national bank; facts about relationships of the new country with foreign nations; facts about the Monroe Doctrine; facts about how people in all times have had to learn to live together and realize their mutual interdependence

E. Unit Five: How Americans Learned Better Ways of Living

1. Introductory statement

As its subject suggests, the boys and girls are going to discover in this unit how the Americans improved their ways of living. The main emphasis should be upon the industrial revolution, new moral and cultural ideals, and new understanding among the American people of the power the nation's resources, and geographic location have given them. Beneath all this progress is a growing disunity on the question of slavery.

2. Objectives

- a. To understand how new inventions changed men's lives and bound the nation together
- b. To understand how the nation expanded in area and grew in population
- c. To understand how American ideas were changing
- d. To appreciate the contribution of the great writers and statesmen of the early part of the nineteenth century

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about new inventions and the effect of the Industrial Revolution on American life; facts about the shifting of population: growth of cities; labor unions; facts about the development of slavery; facts about the beginning of American literature; facts about people: Robert Fulton, Morse, Bell, General Jackson, Henry Clay, Cyrus McCormick, Albert Gallatin, DeWitt Clinton

b. Facts of geographical significance

Facts about improvements in travel, transportation, and communication: carriages, canals, roads, railroads; facts about national expansion to the West and to the South; facts about foreign commerce; facts about the location of manufacturing industries; facts about the routes to the West; facts about resources below the soil: water, fuels, metals, minerals; facts about the development of waterpower and the growth of manufacturing

c. Facts of civic significance

Facts about government in the frontier regions; facts about new laws needed by the growing nation: land laws, the Patent Act; tariffs; facts about the increasing problem of slavery and the compromises between the North and South; facts about new states added to the Union; facts about the growing wealth of the country, national thrift, better schools; facts about the progress in transportation, communication and industry binding the nation together

V. Development of a Sample Seventh Grade Unit (See Development of Sample Unit for Grade Six, page 552)

VI. Eighth Grade Units

A. Unit One: How the People Met New Problems in Their Government

1. Introductory statement

The Civil War is studied not as a series of great battles, sieges, and campaigns, but as a struggle in which the American people settled the great problem of slavery. Although the Civil War and the reconstruction that followed are of paramount importance in the study of this period, the teacher must not overlook the fact that even these years were a time of expansion in territory and progress in democratic living.

2. Objectives

- a. To understand how the nation reached to the Pacific
- b. To understand the differences between the North and South which led to the Civil War
- c. To understand the part slavery and the Civil War played in the history of the American nation
- d. To appreciate the character of Abraham Lincoln

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the widening rift between the North and South; facts about attempts at compromise; facts about the life of Abraham Lincoln; facts about the Civil War and about the Reconstruction Period; facts about people: Andrew Jackson, Daniel Webster, the Mormons, the "forty-niners," Henry Clay, Abraham Lincoln, Jefferson Davis, U. S. Grant, Robert E. Lee, Clara Barton; the New South and Booker T. Washington

b. Facts of geographical significance

Facts about the Oregon Trail and the three routes to California; facts about the Oregon boundary; facts about Texas and California; comparative facts about the surface, climate, and way of living of the North and the South; facts about the Mississippi and its tributaries; facts about the growth of cities and the development of manufacturing

c. Facts of civic significance

Facts about the annexation of Texas and the compromises on the slavery question; facts about immigration and the reasons which brought people to America; a comparison of the Confederacy with the federal government; the Emancipation Proclamation; government in the South during the Reconstruction Period; facts which show that this nation could not exist "half slave and half free"

B. Unit Two: How Science and Invention Helped Our Industries To Expand

1. Introductory statement

For Montana boys and girls, the main interest in this unit will be the development of travel routes, and means of transportation which made possible the settlement of the West. It is during this period that Montana was admitted to the Union, and in many of the events of the period, movements can be discovered which very directly affected and influenced Montana and our own time.

2. Objectives

- a. To understand how the lands of the Great West came to be settled
- b. To understand how science and invention helped our industries to grow
- c. To understand how our population increased and became urban instead of rural
- d. To understand the problems that grew out of the industrialization of the country, and how these problems were and are being met

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the settlement of Western lands; facts about the new states carved from Western territories; facts about increasing government supervision and aid: to farmers, to railroads, to industry, and to public health; facts about improvements in transportation and communication: faster trains, automobile, airplane, better telephone service; date fact: 1889

b. Facts of geographical significance

Facts about the Western states and their resources; facts about transcontinental travel, railways, highways, airways; facts about conservation of our national resources; facts about the growth of foreign and domestic commerce

c. Facts of civic significance

Facts about increased cabinet membership; facts about labor problems, immigration, and Americanization; facts about broader suffrage: the responsibilities of voters; facts about improved civil service, and honesty in public office; facts about new concepts of government in the new states; facts about public aid: educational, correctional, charitable; facts about how people lived and worked together in the country, villages, industrial centers, cities

C. Unit Three: How Becoming a World Power Brought New Problems

1. Introductory statement

Some historians have called this "The Period of Empire," but the concept of empire does not fit readily into the American picture. In this unit, the boys and girls are discovering the spread of the American ideals of self-determination of peoples, and the freedom of the seas. There are many people living who fought in the Spanish War and the veterans of the first World War are in every household. The part played by America in these struggles can be made very real to eighth graders, and this part must be studied as a continuous progression which has led the nation into yet another war which, according to statements of Allied leaders, has for its objective: "Better living for all people everywhere."

2. Objectives

- a. To acquire an understanding of how our nation became a world power
- b. To appreciate the interdependencies of the United States and its possessions
- c. To understand why Spain and the United States went to war in 1898
- d. To understand why the United States went to war against Germany in 1917, and the part the United States played in the second world conflict
- e. To understand how world peace might be attained

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about the territorial expansion of the United States: Alaska, Hawaii, Puerto Rico, the Philippines, Danish West Indies, smaller islands and bases; facts about the Spanish-American war; facts about the help given Cuba; facts about proposed freedom for the Philippines; facts about responsibilities under the Monroe Doctrine and about the Pan-American Union; facts about the Panama Canal; facts about the World War I and the Treaty of Versailles

b. Facts of geographical significance

Facts about the location, topography, and resources of our possessions; facts about communications between the United States and her possessions; facts about the geography of the first World War: distances troops and supplies were convoyed; locations of the warring countries; facts about the colonial areas of the countries at war

c. Facts of civic significance

Facts about internal problems of the World War period: irrigation, conservation of natural resources, relationship of capital and labor; facts about territorial government, American imperialism, protectorates, colonial policy; facts about policy toward aliens: citizenship, naturalization, Americanization, the "melting pot;" facts about foreign relations: Mexico, China, the Hague Conference; facts about cooperative efforts to win the first World War: enlistments, the draft, liberty bonds; facts about the attempts at world peace: limitation of armaments, League of Nations, war debts, World Court, Treaty of Versailles

D. Unit Four: New Tasks That America Faces in the Twentieth Century

1. Introductory statement

Each eighth grade boy or girl might well take as a question for personal answer during the study of this unit: "What do I do with my citizenship?" since it is in the period they are studying that new concepts of citizenships are developing. In the study of this unit, government can be made a very personal matter with boys and girls in school. They are studying a period in which they were born and in which they have lived; they are citizens of a great nation—what are they going to do about it?

2. Objectives

- a. To be able to picture America at the close of the first World War
- b. To understand how science improved ways of living
- c. To understand the necessity for cooperative effort
- d. To understand the causes and the lessons of the great depression

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

Facts about recent inventions: radio, improved aviation, television, improved train and automobile transportation; facts about new discoveries in science, medicine, health

b. Facts of geographical significance

Facts about the resources of the United States and her possessions; facts which lead to an ability to make comparisons between the resources and wealth of Germany, Italy, and Japan on one side, and France, Great Britain, Russia, China, and the United States on the other

c. Facts of civic significance

Facts about twentieth century amendments to the Constitution; facts about human welfare laws: education, social reform, new government agencies; facts about the depression, the New Deal; facts about how governments perform: local, county, state, nation; facts about political parties

E. Unit Five: How We Live and Govern Ourselves in a War World

1. Introductory statement

It is doubtful if any school will relegate to a certain grade-group, or to a certain time of year, all discussion and study of the present war. It is important, however, that boys and girls who have been studying about the United States since the beginning of the seventh grade should now be ready to make a thorough and careful analysis of the causes which led this country into war and of the day-by-day progress of the struggle. Boys and girls today are living in momentous times. The President and the Congress of the United States have asked that boys and girls take a definite part in the war effort. They will undoubtedly have a part in the peace which is to follow. It is hoped that an intelligent study of the War and of the part our country is playing in it will help to prevent the recurrence of some mistakes of 1918 and the years that followed.

2. Objectives

- a. To understand the underlying causes of the present world war
- b. To be able to interpret intelligently daily radio and news reports about the war
- c. To know something about the locations, topography and resources of the warring nations
- d. To understand the contribution which each individual can make to the war effort and the personal sacrifices which may be necessary
- e. To understand the essentials of lasting world peace

3. Factual knowledge pertinent to the solution of the problems of the unit

a. Facts of historical significance

The causes of the second World War: The Versailles Treaty, weakness of the League of Nations, German wish for "a place in the sun" and a "new order in Europe," Japan's territorial ambitions: "Asia for the Asiatics;" facts about the preparations for a modern war: population movements, increased production of raw materials, the manufacture of armaments, increased transportation needs; facts about the war's effects on our daily living, rationing, restricted travel, limited supplies for private use, education for war, the draft; facts about the progress of the war; Japan's war on China; Hitler's conquest of the Netherlands, Belgium, Denmark, Poland, France, and the Balkan countries, and his war against Britain and Russia; facts about the United States in the War: armament, selective service, lend lease, the isolationists, meeting of Churchill and Roosevelt, Pearl Harbor, Corregidor, the campaign in the Pacific, American airmen in Iceland, Ireland, and Australia; the war in the Atlantic; commando raids; facts about people in the war: President Roosevelt, General MacArthur, Winston Churchill, Adolph Hitler, Benito Mussolini, Emperor Hirohito, General Rommel, Chiang Kai-Shek, Josef Stalin, Marshall Timoshenko; war terms and names: fifth column, tanks, bombers, fighter planes, submarines, tankers, convoys, Quislings, internment, neutrals, blackouts, paratroops, air invasion, pillboxes, offensives, saboteurs, spies, treason, ersatz, blitzkrieg, task force

b. Facts of geographical significance

Facts about boundary lines established after World War I: racial lines, cultural lines, division of conquered countries; facts about the location, topography, and resources of the warring nations; facts about distances

and directions; facts about re-alignment of world trade; facts about the Pacific islands; location facts about important battles and campaigns; production facts

c. Facts of civic significance

Facts about centralization of power in wartime; comparisons of democratic with totalitarian government; treatment of enemy aliens; freedom of speech and press; facts about wartime boards and agencies; facts about cooperative efforts to win the war: rationing, subscriptions to war agencies, higher taxes, purchase of war bonds, civilian defense; facts about Montana's contribution to the war effort; facts about capital and labor during the war; facts about propaganda; facts about the duties of each citizen

VII. Development of a Sample Eighth Grade Unit (See Development of Sample Unit for Grade Six, page 552)

Sample Activities Growing Out of Social Studies Units

Visitors to Montana Schools are invariably amazed at the variety of activities they find in progress. At first glance, many of these seem to have little relation to the formal textbook program the visitor usually associates with elementary education. The children are able defenders, however, of their projects, and it requires but a few minutes of their enthusiasm to prove that the activity in progress is really essential if the school is ever to get a thorough understanding of a problem which has arisen in connection with the subject under study. The most interesting and wholesome aspect of many of these programs is the number of them which could never be completed if the school or group were to work on them alone. Parents, citizens, public officials, and all the resources of the community must, in many cases, contribute to the solution of the problem.

Because of space limitations only a few examples of such activities are included in this book.

Irrigation

The children in one rural school became interested, while studying about ancient irrigation projects in the Nile Valley, in the need for irrigation in various parts of Montana. This brought up the question of the number of inches of rainfall which are necessary to raise such Montana crops as wheat, flax, beets, and alfalfa, where irrigation is not practiced. The children wrote to the Department of Agriculture in Washington, D. C., and to the Montana State College, at Bozeman, to discover how much rainfall these crops required during the growing season. The children also wrote to their county agent inviting him to the school. He

came and brought charts which showed how much moisture the different crops require, and explained many facts about rainfall, summer-fallowing, and drought-resistant varieties of seed that had not been touched upon by the children in their class discussions. After the county agent's visit the children made a rain gauge out of a funnel and a test tube and measured the rainfall at the school during April and May. They compared their measurements with the figures which appeared in the county paper of the measurements made by the Weather Bureau observer in the county seat. Reports were brought to class showing the record of crops that had been raised in the county without irrigation, also records of crop failures, and comparative records of irrigated crops. The children decided that, beginning in the fall when school opened again, they would keep weather records for the entire year.

Keeping Bees

When the children in a rural school found out that sugar was to be rationed, they discussed ways of conserving sugar and substitutes for sugar. One of the boys, Will, asked why everybody in the country did not keep honey bees, so that honey could replace sugar. This boy knew considerable about bees, since his father kept a number of hives on his farm. Other children scoffed at the idea, but out of the discussion a plan was developed to keep some bees in the schoolyard during the spring, summer, and fall. Will's father loaned some bees. The children read everything they could find on beekeeping and wrote to the agricultural school in Bozeman for further information. The discussions brought up such allied problems as: Would beekeepers need Japanese labor? Would the bees hurt the alfalfa and sweet clover in nearby fields? How long have people used honey for food? and many others. Such questions led to an intensive study of bees, which developed into further study of insects and moths.

At the end of the school year, the hive was placed on the school ground some distance from the building and fairly near the home of one of the eighth grade pupils who agreed to watch it during the summer. The next fall, after Will's father had helped harvest the honey, the pupils wrote for a book of honey recipes put out by the government. The sixth grade girls and the teacher tried the recipes and found that they really worked. The whole school enjoyed honey cookies, honey candy, and even honey ice cream.

A Products Map

In a school in which the fourth and fifth grades do much of their work together, it was decided that making a product map would be a good way to get a general overview of the United States. The seventh and eighth grades offered to help, as they too, were studying the United States. At first, the pupils decided that they would paste on the map in each state a picture which

would indicate a product of that state. A large map of the United States was drawn on a piece of old window shade and the boys and girls began finding pictures of the products they wished to show. One of the boys offered to bring a cotton blossom which had been sent him from Louisiana. This gave the class the idea of obtaining actual samples of state products and putting these on their map instead of pictures. This proved to be a tremendous undertaking. In an atlas the pupils found state maps which showed the names of counties. Counties were chosen at random and letters were written to one county superintendent in each state. In each letter to the county superintendent, another letter was enclosed to be given to some rural school in the county suggesting an exchange of samples of state products. It was necessary to write more than one letter to some of the states and replies were not received from all. Twenty-four products were finally received and were glued or sewed to the map. Each pupil then wrote a description of the whole project, dwelling particularly on the part he had played in it, and a scrapbook was made containing all the letters which had been received. When all were complete, the map, scrapbook, and pupils' stories were exhibited at the Northern Montana Fair where they took a prize. Some of the products received were: cotton, pieces of wood, several kinds of grain, bits of coal and granite, dried fruit, leather, small manufactured articles, and needles from southern pine. In exchange, the school sent small strands of Montana wool.

Milk

The fifth grade in a Carbon County school was studying about the North Central States. A girl brought to school a label from a can of milk which came from the region being studied. The class had already discovered that this part of the country was famous for its milk and milk products, so they decided to follow up the lead of the label and obtain more information about the production of milk. Since the school is a very large one, the teacher confined the project to the upper four grades. Each boy and girl in these grades wrote to a milk canning factory in the region under study* and considerable advertising and informational material was received. Much of this material dealt with the value of milk in the diet and its use in cooking. Some of the girls brought recipes in which milk was an important ingredient, and the class tried out some of the recipes in the teacher's kitchen. Later, each girl took her turn at serving the school lunch, using at least one dish made with milk as the chief ingredient.

The study also included the use of milk in making milk chocolate, and led to an investigation of the amount of milk exported from Holland and Switzerland. Government and state bulletins were received explaining the care and use of milk from the

(*Addresses from milk cans on grocery shelves and from the Milk Industry Foundation, Chrysler Building, New York City)

producer to the consumer. The children were particularly interested in the army's use of powdered milk for the soldiers abroad.

The Fort Peck Dam

The third grade in a North Montana school was reading a story about riding in a motor boat (*Faraway Ports*, page 232). One boy in the group told about a ride which he had had in a boat just a few days before. The children were surprised to hear of boats near their dry-land district, so the boy told them that it was at the Fort Peck Dam where he had enjoyed his boat ride. All the children had heard about the Fort Peck Dam, but only this one boy had visited it. He volunteered to bring some pictures he had at home which showed the Dam. He also said that his uncle, who worked at Fort Peck, had a great many pictures which he might be willing to lend the school.

The eighth grade had been studying about recent achievements in American history and they immediately volunteered to help the younger children obtain information about the Fort Peck project. A letter was written to the uncle who worked on the Dam, and he sent a number of pictures to the school. Letters were also written to the Chamber of Commerce at Glasgow, Montana, and to the War Department in Washington, D. C., asking for literature about the Dam. Several children brought maps of Montana from service stations which showed the location of Fort Peck. The children located their own school on the maps and were surprised to see how close the Dam appeared to be. One girl brought a copy of *Life Magazine* which contained many pictures taken at Fort Peck. A representation of the Fort Peck Lake and Dam was made on the sand table.

As an outgrowth of the school's interest, the parents organized a community picnic and excursion. All the children were taken one Sunday on a trip to the Fort Peck Project. While there, they had a ride in a boat which was a new experience for most of them.

An Industrial Tour

A school in Richland County was invited by the Sidney Kiwanis Club to send representatives to make an "Industrial Tour of Sidney." Two pupils from the school accepted the invitation. They were shown such points of interest as the courthouse, the post office, the telephone office, the banks, the printing office, a cold storage plant, a seed house, a flour mill, a pipe and culvert factory, a sugar factory, and the high school. They were given lunch at noon and in the evening were invited to attend a picture show. When these pupils returned to their school, they made reports about the things they had seen. All the pupils listened and asked questions which called for further explanations. The pupils who made the trip wrote up their experiences as a part of the school's permanent record of activities.

Many times during the school year, when various classes or groups would be studying about communications, the courthouse, or some of the industries which had been observed by the pupils who made this trip to Sidney, they would be invited into the classes to answer questions or to make further explanations pertinent to the subject which the classes were discussing.

A Rural Community

When the pupils of a Cascade County eighth grade were studying in civics about the community, the question was raised as to just what constituted a community. Most of the pictures in the civics books available showed city and village communities, but little material was found about rural communities. The pupils, therefore, decided to learn about rural communities from a study of their own community. Since this school is in the Fairfield irrigation district, the members of the class went to Fairfield on Saturday and visited the office of the Sun River Irrigation Project. Considerable material describing the project was given them and a large project map was loaned to the school. The pupils also wrote to the Department of the Interior in Washington for additional information. When all the material was assembled, the group decided to make their own community map. The children used real cement, sand, gravel, and clay, and worked out a large-scale map of their own district. They showed highways, farms, canals, ditches, and a town. The project was completed during the winter months, and it occupied the floor in a large corner of the room. Before the work was completed, the boys and girls found they had made use of geography, history, civics, health facts, language, writing, manual arts, and even arithmetic.

The Sugar Beet Industry

A rural school which we shall call, "R," was located near a railway siding. Nearby, on the siding, was a beet loader and the children found the passing beet trucks very interesting. The eighth grade in this school was studying the second unit, about how science and invention helped industries to expand, and one boy raised the question of when beets were first used in the production of sugar. He told the class that his grandmother did not like beet sugar because she was used to cane sugar, which was much better.

The sixth graders also became interested in the problem of sugar since they were studying about Southern Europe and had discovered that a great deal of beet sugar is produced in the Balkan Peninsula and in Italy. The two classes decided to make a study of beet sugar production together.

The boys and girls made a trip to the railroad siding to see the loader work. While there, they saw several cars of beets picked up by a train made up entirely of cars of beets, which the children knew were being shipped to the sugar factory at Chinook. The

class next wrote to the factory at Chinook to ask if some of them might be permitted to visit the plant. The sugar beet factory replied, inviting them to come, and on the following Saturday two boys from the eighth grade made the trip. They brought back samples of pulp and sugar in various stages of purification, and told many interesting things about their visit. They drew pictures to illustrate their report and the whole school stopped their work to listen to them.

Following this report, other grades began to take an interest in the sugar project. The second grade made a list of the ways in which sugar can be used and cut out poster pictures showing foods made from sugar. The eighth grade reproduced graphs from "Montana Production," showing how much sugar was raised in Montana, which were enlarged to scale and drawn on strips of paper and pasted on the blackboard. One girl brought an old cookbook from which the eighth graders cut out recipes and made graphs to show the part of sugar in baking, cooking, and canning recipes. They also reduced the recipes to ounces, showing in fractions, decimals, and percentage the part of each recipe which was sugar. For this they used a small scale and cooking materials from the teacherage.

Each boy and girl working on the project wrote at least one letter for information about sugar. These letters were to sugar companies, to the United Fruit Company, to the Department of Agriculture, and to the Montana State College. When all the materials had been received, they were used in a display, together with the charts and samples from the sugar factory. The children called this their "Sugar Show," and it made a splendid culminating activity for the unit.

Pioneers

The second and third grades in a school in northern Montana were reading stories about the earliest Thanksgiving celebrations. The word, "pioneers," appeared in some of the stories, and the pupils enjoyed reading about how pioneers lived. It was then an easy step to telling stories about pioneers in their own community, and each boy and girl agreed to bring one local pioneer story to class. Some of the children who were comparative newcomers in the community visited old-time residents to learn their stories. Fortunately, there was one woman in the community who had come to Montana in a covered wagon and one who had heard her mother tell of coming up the Missouri on a boat. The children made both a mural and a sand table depicting pioneer life. The sand table was particularly realistic, in that it showed a covered wagon with real cloth for a cover, oxen and horses cut from plywood, a log cabin built of twigs, and several small dolls dressed to represent early periods of Montana history.

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